



# Examining 21<sup>st</sup> Century Language Learning Skills Among Children from Islamic Religious and State Schools in Cambodia

Research Report Developed by the  
**Royal University of Phnom Penh**  
under the **SEAMEO INNOTECH**  
**Research Partnership Grant**



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# Acronyms and Abbreviations

<b>CL</b>	Collaboration skills
<b>Com</b>	Communication skills
<b>CT</b>	Critical thinking skills
<b>CRE</b>	Creativity skills
<b>EFA</b>	Education for All
<b>EI</b>	Emotional intelligence
<b>FoED</b>	Faculty of Education
<b>GEIP</b>	General Education Improvement Project
<b>IOC</b>	Item Objective Congruence
<b>LUP</b>	Leadership Upgrading Program
<b>MoEYS</b>	Ministry of Education, Youth and Sport
<b>PCD</b>	Personal competence dimension
<b>RGC</b>	Royal Government of Cambodia
<b>PSD</b>	Problem-solving dimension
<b>RUPP</b>	Royal University of Phnom Penh
<b>SEAMEO INNOTECH</b>	Southeast Asian Ministers of Education Organization – Regional Center for Educational Innovation and Technology
<b>SEIP</b>	Secondary Education Improvement Project
<b>TUP</b>	Teacher Upgrading Program
<b>ZPD</b>	Zone of Proximal Development Theory

# Foreword

Developing 21st century skills is crucial in ensuring that the desired learning outcomes in this time of globalization, information surge and technological advancements are achieved. The new developments in the digital age have demanded a more complex set of competencies and changed how teaching and learning happen. Schools are focused on building and enhancing learning skills such as critical thinking and problem solving, collaboration, communication, and creativity to better prepare learners in adapting and succeeding both in life and work.

As a regional catalyst for educational transformation, INNOTECH supports efforts that respond to the rapidly evolving demands of learning in the 21st century—especially those shaped by technology and innovation.

The acquisition of these skills, however, differ based on a variety of factors and actors. Teaching and learning are guided by policies, education goals and curriculum content. Learning opportunities to foster 21st century skills vary with respect to pedagogies and assessment practices, resources, learner needs and interests, the community and other stakeholders, among others. This study, *Examining 21st Century Language Learning Skills among Children from Islamic Religious and State Schools in Cambodia*, sheds light into the learning skills of students from two different learning contexts in Cambodia.

By examining how diverse school settings support learners in acquiring key competencies, the study contributes to our shared aspiration of equipping future changemakers with the skills they need to thrive and lead in their communities.

With its final phase completed in 2024, the study presents the commonalities and differences of the performance of Cambodian learners from state schools and Islamic religious schools on 21st century skills, which in this research covers, decision making and personal competence in addition to the four core learning skills. It highlights cultural context and educational settings, among others, as likely contributors in student performance.

Through the examination of the learning skills vis-à-vis the different learning contexts in Cambodia, we gain a more comprehensive understanding of how different students acquire 21st century skills. We are better guided on how we can leverage on strengths provided by the learning environments of state schools and Islamic religious schools and improve strategies to address gaps.

This kind of research is central to our commitment to driving innovation for education across Southeast Asia, ensuring that insights from culturally rich and diverse settings inform more inclusive and effective learning systems.

We wish to extend our congratulations to the Royal University of Phnom Penh for their successful participation in the second cycle of the SEAMEO INNOTECH Research Partnership Grant. Their contribution has been invaluable not only in Cambodia but also in Southeast Asia. May we all continue to endeavor to prepare our learners for the future.

**Majah-Leah V. Ravago, PhD**  
Centre Director, SEAMEO INNOTECH

# Preface

It is my great pleasure to present this insightful research report, **“Examining 21st Century Learning Skills among Children from Islamic Religious and State Schools in Cambodia”** as the Dean of the Faculty of Education at the Royal University of Phnom Penh. This research clarifies the various educational environments across our country. It tackles a pressing topic, particularly the learning context of 21st century learning skills in different settings among Islamic religious schools and state schools.

Education systems throughout the world have a huge issue in the 21<sup>st</sup> century: giving students the skills they need to succeed in a world that is becoming more dynamic and interconnected. With its wide range of cultures and religions, Cambodia offers a special framework for analyzing how various educational environments prepare learners for this quickly changing global environment. The learning environments of Islamic religious schools and state schools are examined in this report, which also offers a comparative examination of the learning skills acquired in these two different educational systems.

The results in this report are the product of careful investigation and cooperation between academics, teachers, and students from Islamic religious and state schools. They provide insightful information on the advantages and disadvantages of every educational system, emphasizing areas where both systems may learn from and advance. The study emphasizes how crucial it is to create an inclusive educational environment that values diversity and encourages each student to improve their critical thinking, creativity, communication, and teamwork abilities.

My sincere appreciation goes out to the research team for their commitment and diligence in making this study a reality. It is really admirable how dedicated they are to improving educational research and practice in Cambodia. In addition, I would like to thank our partners and stakeholders, especially SEAMEO INNOTECH, for their financial and technical support, which has made this research project a success.

My goal is that this study will act as a spark for discussion, ideas, and the creation of policies that will improve the standard of education for all learners in Cambodia. By acknowledging and valuing the distinct contributions made by other educational traditions, we may collaborate to create an education system that is more egalitarian, inclusive, and successful in preparing our children for the possibilities and challenges of the 21<sup>st</sup> century.



**Dr. Sok Soth**

Dean, Faculty of Education, Royal University of Phnom Penh

# Acknowledgment

We would like to express our deepest gratitude to all those who have made substantial contributions to this research project, “Examining 21st Century Learning Skills among Children from Islamic Religious and State Schools in Cambodia”.

Foremost, we would like to express our sincere gratitude to SEAMEO INNOTECH for providing a research grant to conduct this research study. Without this support, the research study will not come into existence. Their engagement in educational research demonstrates their dedication to knowledge advancement and bettering the educational experiences of all Cambodian students. We are particularly grateful to Center Director Professor Leonor Magtolis Briones, Educational Research and Innovation Office Manager Dr. Diosdado M. San Antonio Manager, and Legal, Policy, and Quality Management Office Manager Atty. Ira Paulo Pozon for their support. We also thank the Research Review Team, led by Educational Research Unit Head Dr. Sherlyne A. Almonte-Acosta and supported by Erlene G. Umali, Katherine P. Torralba, Hiyas S. Clamor-Torneo, and Jocelyn C. David. We also acknowledge former staff Jailyn N. Puerto-Mar and Dr. Christian Leubert C. Milambiling for helpful inputs at the beginning of the project. We also acknowledge the contributions of Ms. May Flor Pagasa Quiñones for her thorough and substantive copyediting of the reports.

We also would like to express our heartfelt gratitude to the Royal University of Phnom Penh for offering the institutional support and resources that were required for this study. We especially thank Dr. Sok Soth, the Dean of the Faculty of Education, Royal University of Phnom Penh, for his continuous support and conviction in the importance of this research. Dr. Mam Socheath, the Vice-Dean of the Faculty of Education was likewise very supportive.

We express our sincere gratitude to all those who participated in this study, including the administrators, educators, parents, and children of the Islamic religious schools and state schools. Their candor, collaboration, and wisdom greatly enhanced the caliber and scope of our discoveries.

We would especially want to thank our hardworking research team whose dedication, experience, and hard work served as the foundation for our project. This undertaking was made effective and satisfying because of their unwavering pursuit of perfection, scrupulous attention to detail, and collaborative attitude.

Lastly, we would like to express our thanks to our friends and family for their constant support and inspiration along this journey. Their tolerance, understanding, and spiritual support were a source of inspiration and strength.

To everyone who contributed to this research project, we extend our deepest thanks. Your contributions have been invaluable, and we deeply appreciate your support and commitment to advancing education in Cambodia.

**Dr. Ke Sambo**

On behalf of the Research Team

A young girl wearing a pink hijab is sitting at a desk, reading a book. The image has a blue and purple color overlay. The text 'Executive Summary' is written in white, bold, sans-serif font over the girl's face and the book. A thin white horizontal line is positioned below the text.

# Executive Summary

Learning language skills has played a crucial role in the academic life of Cambodian adolescents, particularly minority learners. This research aimed to 1) develop an adaptive measurement model of the 21<sup>st</sup> century language learning skills (critical thinking, collaboration, communication, creativity, personal competence, and problem-solving) among early adolescent students in Islamic religious schools and state schools; and 2) compare the levels of the 21<sup>st</sup> century language learning skills of early adolescent students from Islamic religious schools and state schools in the Cambodian context.

Causal-comparative design was employed to achieve the main research objective. In addition, descriptive and exploratory factor analysis were utilized to obtain some descriptive information and develop an instrument to assess the 21<sup>st</sup> century language learning skills. The authors analyzed the levels of the 21<sup>st</sup> century language learning skills among these two schools using Multivariate Analysis of Variance (MANOVA). Research findings highlight multivariate effects across all four dependent variables (collaboration, creativity, personal competence, and problem-solving). Islamic schools and state schools have significant differences, with p-values less than .05. In contrast, the two dependent variables (critical thinking and communication) are not significantly different.

Consequently, it causes variations of the effect sizes in students' collaboration, creativity, personal competence, and problem-solving skills. The types of schools likewise affect the skills of the students. Moreover, the collaboration skills of students from each school have the highest level. This suggests that the learners of both schools tend to obtain better language learning skills in terms of collaboration because teachers organize teaching and learning activities such as think-pair-share, peer-help-seeking, and group discussions in language learning classes (Khmer literature and Arabic language). On the other hand, personal competence obtained the lowest levels, which suggest that most students from both types of schools have low personal competence skills in learning languages as teachers likely did not provide the learners with any activities to promote their personal competence. Learners from both schools focused more on enhancing their hard skills like reading, writing, listening, and speaking rather than on personal competence in learning the language skills.



PART 1

# Introduction

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In the past 20 years, Cambodia, which was a victim of rampant civil wars, has done so much to transform itself from a country receiving support from the United Nations peacekeeping forces to a country contributing forces to the UN peacekeeping efforts (Royal Government of Cambodia, 2018). Further, Cambodia aspires to transform itself into an upper-middle-income country by 2030 and a high-income country by 2050 (Ministry of Education, Youth and Sport, 2019). This ambitious dream can be achieved by having sufficient human resources, through equitable and inclusive education.

The Cambodian government thus focused on ensuring equitable and inclusive access to education for learners with disabilities, learners from ethnic minorities, learners living in rural and urban poor areas, and learners from diverse backgrounds. However, some limitations need to be addressed in order to achieve inclusive education goals. In the Cambodian education context, being inadequately prepared for school, experiencing poor quality teaching and learning, and irregularly attending school are the main reasons Cambodian learners keep falling behind in school (Kalyanpur, 2011). Moreover, the increase in dropout rates, which has not properly been addressed, remains a major concern.

Conforming to the idea that all Cambodian learners have an equal chance to learn in whatever conditions, the Cambodian government and other relevant stakeholders have spent relentless efforts to elevate these issues and provide equal rights for every child. Consequently, the number of learners enrolled in primary education has drastically increased from 82% in 1997 to over 97% in the school year 2017-2018 (Lee et al., 2014). Despite evident improvements in the numbers, learners in Cambodia still fail to reach learning standards appropriate for their age. For instance, at the primary level, nearly 25% of learners in grade 3 cannot write a single word in a dictation test. Only 27% of 3-to-5-year-olds are developmentally on track in literacy and numeracy, and by the time they are 17 years old, 55% of adolescents will have dropped out of school (Rao & Pearson, 2015).

Particularly, learning skills for the 21<sup>st</sup> century must be integrated into teaching and learning outcomes across grade levels in Cambodia. They are the main foundation for attaining quality of life and employment. Quality of life, which includes measures such as happiness and positive thinking, is very important for Cambodian learners to live together in harmony and have emotional and physical well-being. Additionally, 21<sup>st</sup> century learning skills also help Cambodian learners increase chances for employability in terms of high wages, competent working abilities, and working productivity (Care et al., 2018). All Cambodian learners are provided equal chances to learn these skills and unleash their fullest potential.

However, the learning skill levels of 21<sup>st</sup> century graduates are observably lower than expected (Stehle & Peters-Burton, 2019). The high unemployment rate among Cambodian graduates, which stood at 7.7% (Sam, 2018), is likely due to a lack of essential 21<sup>st</sup> century skills. Empirically, the development of competencies consumes time (Dolmans et al., 2010), effective training approaches (Gorard & See, 2013), and systematically ordered techniques (Higgins & Katsipataki, 2015). For these reasons, 21<sup>st</sup> century skills are necessarily trained, practiced, and applied at the onset of educational levels (Lor, 2021) so that students at younger ages are exposed earlier not just only to understand the skill concepts but also to perform those skills through their academic tasks and daily life activities (Roksa & Arum, 2015).

## Definitions of the Learning Skills of the 21st Century

The 21<sup>st</sup> century language learning skills have different definitions and dimensions, depending on what the research aims are. Researchers agree, however, that it is a multidimensional construct. Previous studies attempted to merge the 4C dimensions of critical thinking, collaboration, communication, and creativity with other dimensions by consulting certain theoretical framework and providing empirical evidence through statistics. This section summarizes how previous studies define these dimensions. The extended dimensions of the 21<sup>st</sup> century learning skills are personal competence, decision-making, and problem-solving, which have been considered the context for learning 21<sup>st</sup> century skills among adolescents in Islamic religious and state schools.

Critical thinking skills include the ability to evaluate and analyze information, ideas, and arguments logically (Lai, 2011). More specifically, critical thinking requires careful and proactive examination of evidence, concepts, and phenomena to form well-informed judgments and sound logical. It should go beyond accepting information at face value and instead look at the issues through various and challenging questions (Beyer, 1995). Further, according to various studies, critical thinking includes other components such as evaluation, inferences, analysis, problem-solving, reflection, and open-mindedness (Wechsler et al., 2018).

Problem-solving skills have been defined as the capability to cope with problems constructively and effectively through a personal and social nature (Norman, 1988). Problem-solving is likewise important for self-awareness, as it helps control and alleviate effects of confronting issues. According to Boland and Tenkasi (1995), learners should develop successful communication and problem-solving skills to have a better understanding of authentic issues.

Meanwhile, collaboration skills can be described as a special ability and attitude to work with others to achieve a common goal (Bosworth, 1994). Successful collaboration has been observed to lead to better communication, teamwork, innovation, and problem-solving. Collaboration is associated with teamwork, cooperation, and leadership scales (Vance & Smith, 2019). Collaboration competence accelerates the significance of the trend toward team-based work in organizations.

Communication skills, on the other hand, form part of relationship management and are associated with teamwork and collaboration (Maguire & Pitceathly, 2002). Communication refers to competencies that enable people to effectively convey and exchange information, thoughts, and ideas with others. It is essential for both personal and professional settings and contributes to building relationships, resolving conflicts, and fostering understanding (McKay et al., 2009). Moreover, communication can be defined as the ability to send clear and convincing messages. Communication covers components such as verbal and

nonverbal communication, active listening, empathy, adaptability, clarity and conciseness, emotional intelligence, feedback, and constructive criticism (Jacobson, 1999; Burgoon & Bacue, 2003).

Creativity skills, meanwhile, have been determined as the ability to produce original ideas, think out of the box, and solve problems innovatively (Fasko, 2001). Creativity involves the ability to connect and combine diverse concepts, perspectives, and experiences to novel solutions. Additionally, creativity could promote significant changes to an organization (Amabile, 1996). Creativity includes components like flexibility, originality, demonstration, divergent thinking, convergent thinking, problem framing, curiosity, and resilience (Amabile, 1996).

Meanwhile, according to Williams (1994), personal competence has three dimensions: decision-making, self-control, and self-regulation skills. Previous studies further articulate that personal competence is associated with cognitive and behavioral self-management strategies (Labouvie et al., 1990).

Decision-making skills involve the ability to make informed choices by carefully evaluating options, analyzing information, and assessing alternatives with sound judgment (Lee, 2007). Key components of decision-making include analyzing alternatives, evaluating outcomes, gathering relevant data, identifying problems, critical thinking, implementing decisions, and engaging in reflection and learning. In organizational human resource management, decision-making skills are crucial for evaluating employee performance and making decisions that align with actual circumstances (Latham & Wexley, 1981).

The social constructivist approach has been instrumental in examining students' 21<sup>st</sup> language learning century skills. This approach is particularly valuable for helping adolescent students in Islamic religious and state schools learn language and cultivate 21<sup>st</sup> century skills. Additionally, the social constructivist approach to language learning emphasizes the significance of social interactions and cultural context in the development of language skills. Hence, it can be applied to the language learning of adolescent students in Cambodia. Similarly, social constructivism serves as a lens for understanding teaching and learning in language classes, especially in fostering the 21<sup>st</sup> century skills of critical thinking, collaboration, communication, creativity, personal competence, and problem-solving. Techniques such as peer learning, help-seeking, and scaffolding challenge students beyond their abilities and encourage them to work harder to develop their language learning skills (Kalina & Powell, 2009). Ultimately, social constructivism forms the foundation of 21<sup>st</sup> century learning skills in language learning, particularly in communication, since human beings inherently rely on exchanging information with each other (Palincsar, 1998).

## Factors in Adolescent Learning

Among adolescents, learning is influenced by individual, social, and environmental factors. Probing these factors can help educators understand how to craft effective educational strategies that can facilitate students' learning of languages.

In terms of individual factors, adolescents' cognitive development in learning languages is the transition into the formal operational stage and enables abstract thinking, problem-solving, and hypothetical reasoning (Barac et al., 2014). During this stage, adolescents develop their identity, which affects their confidence and motivation to learn the language. In some cases, adolescents may experience anxiety, depression, and other mental health concerns which may impact on their performance. Knowing whether adolescents are visual, auditory, or kinesthetic learners may help teachers customize education approaches to improve their students' language learning effectiveness (Saricaoglu & Arikan, 2009).

Meanwhile, social factors help teachers understand students' learning capacity. For instance, parental involvement can strengthen motivation and provide necessary resources. Additionally, friends can have an impact on their attitudes toward schools, learning habits, and learning engagement activities. Building positive rapport with teachers fosters a cooperative and inclusive learning environment, which can significantly enhance students' engagement, motivation, and overall learning outcomes.

Environmental factors also affect adolescents' language learning, and educators must pay attention to both their teaching methods and the learning environment. A conducive atmosphere, supported by well-equipped resources and facilities, enhances adolescents' learning of languages. Further, having a responsive and adaptive curriculum can increase students' engagement, and ensure that instruction can be tailored to address diverse learning needs (De Houwer, 1999). Cultural relevance and community support can also enhance students' engagement and provide additional learning opportunities and resources for language learners.



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## Learning Theories on the Learning Environment and the Development of 21<sup>st</sup> Century Learning Skills

The improvement of learning outcomes, academic performance, and competency aligns with the focus on developing knowledge and cognitive skills, as emphasized in Bloom's Taxonomy. Integrating 21<sup>st</sup> century skills into learning has been carefully designed to reach higher-order learning objectives, which range from application and analysis to evaluation and creation (Bloom et al., 1956). This approach ensures that acquiring 21<sup>st</sup> century learning skills corresponds with achieving complex levels of learning objectives. Consequently, cognitive ability, knowledge acquisition, and learning outcomes are interconnected. For instance, students' cognitive ability in creativity is often a result of their creative skill, which is consistent with the development of metacognitive knowledge (Porrás et al., 2001).

Furthermore, students learn better when their higher-order cognitive abilities are effectively developed. Lower-order cognitive skills that may produce surface-level understanding are not dismissed in the cognitive learning process because those skills provide a solid foundation for achieving higher levels of cognition. The enhancement of skill performance is heavily dependent on instructional design and learning facilitation that allow learners to practice and apply concepts they have learned.

Basic learning theories have been developed to offer the framework for investigating hierarchical levels of skills involved in student learning. These theories also emphasize factors associated with skills improvement that in turn, impact student learning. Two core philosophical approaches to learning, anchored on ideas or experiences, have been discussed for decades. These aspects led to the development of different theoretical perspectives on learning, such as idealism, empiricism, behaviorism, cognitivism, constructivism, and social constructivism (O'Neill & Moore, 2005).

These varying perspectives shape different learning realities and pedagogical approaches. For instance, religious educational systems that emphasize memorization and understanding of the Koran guided by religious philosophies, may be influenced by idealism, which prioritizes learning from principles before practice. This is in contrast with empiricism, which emphasizes that learning is rooted in experiential, real world, and active learning processes. Empiricism posits that knowledge is initially formed through sensory experiences. Thus, learning is a cyclical process that begins with concrete experience, moves to reflective observation, progresses to abstract conceptualization, which is then tested through experimentation (Kolb, 1984). Under this perspective, experiential learning activities allow learners to apply various learning styles and strategies to enhance their performance.

Meanwhile, behaviorists believe in observation and learning in terms of stimulus-response mechanisms. They rely on experimentation to understand learning approaches, without taking into account motivations or mental processes. Instead, learning happens by observing patterns, repetition, reinforcement, and feedback (Ktistis, 2014). These learning aspects may be popular in the context of religious learning environments where students are required to memorize religious principles accurately and fluently.

Cognitivism emerged as an evolution in learning theory and introduced a focus on human thought processes. Ktistis (2014) argues that while behaviourists downplay the importance of mental activity and motivation, they acknowledge that knowledge acquisition primarily involves processing information from sensory memory to long-term memory, with short-term memory as an intermediary. Both behaviorism and cognitivism likely focus on instructors' roles in structuring and guiding student learning, emphasizing a directed and systematic approach to developing thinking and learning.

Constructivists further posit that instructors cannot be in charge of student learning; rather students can construct their knowledge. These theoretical perspectives value autonomy and support of learning, and determine the role of teachers as facilitators or mediators in particular learning activities (Vygotsky, 1934). Teachers assist learners in discovering meaning and understanding by themselves. Learning through an accumulation of information is criticized. Thus, knowledge gained varies according to individual learners.

Constructivism and social constructivism can be distinguished through their ideas oriented to individualistic and socialistic emphases, respectively. The components of 21st-century skills are assumed to be the outcomes of the learning approaches developed from these theoretical perspectives. Considering the model of the 21<sup>st</sup> century skills of this study, critical thinking, decision-making, personal competence, and creativity skills tend to be individual-oriented competencies aligned with the constructivists.

Collaboration and communication skills seem to be socially oriented competence under social constructivist perspectives. Learning is cognitively, socially, and culturally integrated to ensure the holistic development of the learners. Effective learning is cooperatively conducted in a way that low-performance students are technically assisted, as stated in the Zone of Proximal Development (ZPD) Theory, which posits that learning is a transforming process in which a student's potential level of development is transformed into an actual level of development through guidance and support from knowledgeable adults, teachers, peers, and parents (Ktistis, 2014 & Vygotsky, 1934).

The main model of this study, which seeks to examine the relationship between learning realities and students' 21<sup>st</sup> century learning skills, is grounded on the social constructivist theoretical perspective. This perspective suggests that learners can acquire knowledge and information that they might be unable to achieve independently through social interactions (Vygotsky, 1934). This perspective guided classroom practitioners in the design and implementation of cognitive and metacognitive learning strategies, inside and outside classroom interdependent learning activities, and supportive learning environments, which all aim to enhance self-regulated learning skills and academic performance (Pintrich & De Groot, 1990). Further, it is assumed that as learners apply social constructivist learning approaches, they are better able to enhance and retain 21<sup>st</sup> century skills such as higher-order thinking skills, personal skills, and social skills. The construct of learning skills in this study include critical thinking, collaboration, communication, creativity (Kelly and colleagues, 2019), personal competence (Flemig & Watts, 1980), and problem-solving (Bugen & Hawkin, 1981).

This paper thus investigates the extent to which students in Islamic religious schools and state schools in Cambodia apply constructivist learning environments in teaching 21<sup>st</sup> century language learning skills – areas that remain largely unexplored in the Cambodian context.

## Factors that Influence the Development of Students' 21<sup>st</sup> Century Language Learning Skills

Levels of 21<sup>st</sup> century language learning skills among learners are relatively low (Rachh, 2022). Various factors contributing to these varying levels of skill and their sub-skills have extensively been studied on a global scale.

For instance, van Laar and colleagues (2020) reviewed the other psychological and social factors that significantly determined 21<sup>st</sup> century skills alternatives in a digital learning circumstance. They likewise identified how individual and social support influence how these skills are valued as an extension of the effects of demographic and socioeconomic dimensions. The development of 21<sup>st</sup> century skills has primarily focused on undergraduate students (Chaiyama & Kaewpila, 2022) and pre-service teachers (Turhan & Demirci, 2021); consequently, effective curriculum and teaching approaches are necessary to enhance these skills. For instance, project-based and problem-based teaching and learning approaches were found to effectively enhance these skills because these approaches allowed students to exercise self-direction and deep learning (Rais et al., 2021; Hanan, 2022).

In primary school, creative problem-solving has been shown to result from interdisciplinary science activities, suggesting that integrated learning approaches could increase skill levels (Güven & Alpaslan, 2022). Abdulloh and colleagues (2022) conducted a second-order factor analysis and found eight factors that could enhance the 21<sup>st</sup> century skills in primary school education. These crucial factors include (1) teacher quality development, (2) educational evaluation, (3) teaching and learning management, (4) learning environment, (5) curriculum, learning media, and technology, (6) budget for education, (7) community cooperation, and (8) volunteer supervision.

Additionally, contextual and cultural aspects partially affect both the quantity and quality of knowledge and skills acquisition since they influence educators' attitudes, behaviors, and instructional methods. Thus, transforming educators' mindsets could lead to innovative updates in traditional education approaches (Fuad et al., 2020). However, learning context and culture might be distal factors which could influence the outcomes of skills acquisition (Turhan & Demirci, 2021). For this reason, the association between contextual differences and 21<sup>st</sup> century skills, particularly among early-age students in specific contexts, remains underexplored. In fact, there continues to be a dearth of scientific research on the differences in learning activities and approaches to achieving high levels of 21<sup>st</sup> century skills between majority and minority groups (World Bank, 2012).



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## The Khmer-Cham Education Context

Khmer-Cham's population has increased dramatically, although specific data has not been available. Its population is estimated at around 800,000, which represents approximately 5% of the entire Cambodian population. The exact number of Khmer-Cham people and their villages in Cambodia is still unclear statistically. According to data from Muftis office<sup>1</sup>, Khmer-Cham's villages grew from 317 in 1999 to 454 in 2010. Further, interviews with high-ranking people of the Khmer-Cham community surfaced that a huge number of Khmer-Cham people are in Kampong Cham province, which is now separated into Kampong Cham and Tbong Khmom provinces.

Krochama, which is under the Kampong Cham provincial administration, is a district with at least 20 Khmer-Cham villages and is where Khmer-Cham people mostly live. Meanwhile, Chenes, which is one of the communes of the Krochama district, consists of over 2,000 households and is the most populated Khmer-Cham village. Khmer-Cham communities offer informal education that focuses on Arabic literacy and Islamic religious rules and regulations to learners in all villages.

There are, however, neither school buildings nor classrooms in the village, as most classrooms are located in mosques or houses of teachers or religious leaders known as Toun. In big villages, Khmer-Cham learners are usually sent to study at state schools in the morning and Islamic religious schools in the afternoon. For some reason, the majority of learners drop out after graduating from formal education at primary school or leave school before sixth grade. The 60% drop-out rate among Khmer-Cham students in a school organized by a Khmer-Cham community in Phnom Penh is considered an extremely concerning rate.

In terms of Khmer-Cham's context and culture, previous studies have articulated that districts with large Khmer-Cham populations demonstrate the lowest levels of educational efficiency. Khmer-Cham parents have clear expectations regarding learners' education. These frequently relate to instruction in and about their native language, the tenets of Islam, and the importance of teachers' ability to speak the Cham language -- expectations that are generally unmet by state schools (Center for Advanced Study, 1996). With survey data indicating that only about 1% of state teachers are of Khmer-Cham ethnicity, even in heavily populated Khmer-Cham areas, there is a potentially great problem in terms of disaffection between the Khmer-Cham community and the state schools (Bredenberg, 2008). However, the Khmer-Cham do not speak Khmer as a first language with their children. Thus, children struggle when they attend state schools dominated by ethnic Khmer teachers and curriculum. Moreover, most Khmer-Chams do not prefer to live in Khmer villages, which further hinders assimilation. Thus, the challenge for any program is to address distinct cultural and linguistic needs while maintaining that they are not culturally different from the majority ethnic group.

Recently, the Cambodian educational system has been slightly restructured to follow inclusive education principles. In this way, Islamic schools were diversified for the sake of including Khmer-Cham students in formal education and achieving Education for All (EFA) targets (Royal Government of Cambodia, 2003). In addition to those integrative general

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1 Muftis are Islamic jurists qualified to issue a nonbinding opinion (fatwa) on a point of Islamic law (sharia).

primary education schools where Khmer and Khmer-Cham students study together, two other types of schools, namely pure Islamic religious schools and Islamic community schools, have been providing education for Khmer-Cham students. Purely Islamic religious schools provide ethical education guided by the Koran, while Islamic community schools teach religious rules, Arabic language, and general education following the state school curriculum (Musharraf & Nabeel, 2015). Although the standard curriculum of primary education is applied, the shortage of trained teacher resources competent in pedagogy has become a big challenge for these types of schools. The effective implementation of the curriculum and instructional approaches necessary to equip students with 21st century skills in Khmer-Cham schools is constantly questioned.

The curriculum of purely religious schools solely focuses on reading the Koran, along with Islamic prayers, songs, and poems. Since 2018, the government has provided 1,500 government teachers who are followers of Islam to work in Islamic religious schools. However, they primarily teach religious subjects rather than general education. This approach contrasts sharply with state schools, where the curriculum includes a variety of subjects like mathematics, the Khmer language, applied sciences, social studies, and other life skill subjects (Bredenberg, 2004). Consequently, religious schools lag in terms of achieving higher-order learning outcomes. Previous studies have not clearly explained how language learning and moral lessons derived from religious ideology can effectively develop essential skills in collaboration, creativity, communication, and critical thinking.

Meanwhile, 47 Islamic community schools offer general education, religious education, and language learning in Cambodia. They are usually organized by non-government organizations (NGOs), while some school programs are sponsored by international Islamic communities in Malaysia and other Arab countries. There are around 25-40 Grade 6 students in each class. However, these schools do not exist in all provinces of Cambodia, such as Siem Reap, Preh Vihea, Banteay Meanchey, and Odor Meanchey, where primary education students are generally enrolled in state schools. In contrast, purely Islamic religious schools are found in all provinces where Khmer-Cham communities are.

In the ongoing struggle to teach relevant skills and values, conventional teaching techniques used by most Islamic education teachers continue to be significant issues (Komariah & Nihayah, 2023). For instance, most schools in West Africa still use memorizing techniques and textbooks rather than more advanced methods that are now accessible. They made these decisions because they believed that oral traditions would allow them to preserve and revitalize their historical narrative for a much longer period (Lubis et al., 2011). These specific surface learning strategies, however, may restrict students' creative potential and reduce the likelihood that they will acquire the skills necessary to function in their current environments.

Even with the conduct of official inspections after teacher training, schools using predefined curricula and somewhat updated teaching methods, still struggle to provide necessary 21st century skills. Khmer-Cham community schools are particularly vulnerable since their instructors may lack necessary training or remain firmly attached to conventional teaching philosophies shaped by cultural views. This study thus compared the 21st century language learning proficiency levels of early adolescent learners attending state schools and Islamic religious institutions in Cambodia.

## The Impact of the Learning Environment on the Development of Children's 21<sup>st</sup> Century Language Learning Skills

The diverse learning environment, which encompasses learning and teaching practices and cultural perspectives, contributes to varying levels of 21<sup>st</sup> century language learning skills among students in Islamic religious schools and state schools in Cambodia.

Children must acquire 21<sup>st</sup> century language learning skills to allow them to function and cope with real-world problems, and the acquisition of these skills is greatly influenced by their learning environment (Rentzou, 2021). Therefore, it is essential to provide an environment that supports the learning skills required for success in the 21<sup>st</sup> century, given the rapid technological improvements and shifting demands of the modern world. Classrooms must be flexible and adaptable, and offer spaces that allow learners to engage in different learning modalities. These environments promote personalized learning, allowing students to pursue their interests, work at their own pace, and take ownership of their learning process (Papanastasiou et al., 2019). To some extent, these learning activities may be accomplished by offering diverse learning opportunities, exposing students to multiple perspectives, and providing chances to engage with real-world challenges (Darling-Hammond & Cook-Harvey, 2018).

It is important to implement learner-centered approaches as these provide students with a learning environment that focuses on the individual needs, interests, and strengths of each child (Kellett, 2005). Personalized learning approaches, differentiated instruction, and opportunities for self-directed learning empower learners to take ownership of their learning journey. These foster autonomy, self-motivation, and a love for learning, which are all essential for lifelong learning and continuous skill development. Further, as learners are immersed in a digital world, the learning environment should incorporate technology effectively. Incorporating technology tools such as computers, tablets, educational software, and internet resources can promote digital literacy, information literacy, and technological proficiency, which are vital skills for navigating the digital world and adapting to technological advancements (Sahin et al., 2015).

Project-based learning activities can affect children's 21<sup>st</sup> century learning skills levels, as these enable learners to apply skills in real-world contexts (Bell, 2010). Engaging in hands-on projects and activities helps develop critical thinking, problem-solving, creativity, and innovation so that learners are able to function in the world and society. To accelerate students' 21<sup>st</sup> century language learning skills at school, teachers must provide a positive and supportive learning environment that fosters a sense of belonging and encourages active participation. This learning environment helps develop communication skills, collaboration, empathy, and emotional intelligence, all of which are essential for success in the 21<sup>st</sup> century.

Furthermore, learners need to be exposed to diverse cultures, perspectives, and experiences to cultivate global and cultural awareness. It also fosters sympathy, respect for diversity, and the ability to work effectively in multicultural settings. These skills are crucial for collaboration, communication, and understanding in a multicultural society in which learners are able to immerse themselves in diverse cultures (National Research Council, 2012). The learning environment should allow for creativity and innovation so that learners are exposed to creative expression, arts, design thinking, and problem-based learning. Consequently, learners can develop their imaginative thinking, originality, and ability to generate novel ideas, as these skills are essential for entrepreneurship, innovation, and addressing complex societal issues (Qian & Clark, 2016).

Effective learning environments are crucial for developing children's 21<sup>st</sup> century skills. Diverse spaces that promote creativity and innovation, project-based learning, inclusivity, student-centered approaches, and technology integration are essential for fostering flexibility, adaptability, and global cultural awareness. Likewise, engaging and diverse learning environments can improve learning experiences, consequently enhancing learning outcomes and 21<sup>st</sup> century skills.

## Language Learning among Adolescent Students in the Cambodian Context

According to Lewin (1947), teenagers in the Cambodian environment are in the "age of extreme susceptibility" when it comes to the potential to change their habits, attitudes, and behavioral patterns. Academics and educators alike have suggested that this age is the best for learning multiple languages (Rousseau & Drapeau, 2003). In exploring a universally accepted method for language instruction in schools, a prudent goal would be to facilitate the progression from a state of no language proficiency, to fluent communication in the language of instruction. Although globally, the foundational principles of language learning may remain consistent, the implementation of these processes may vary across different educational institutions (Ellis, 2005).

In Cambodia, French and English are the most popular foreign languages studied by learners. Although English is the predominant language used by continuous professional development and learning (CPDL) students, French is one of the main foreign languages used in high school. Students who want to pursue higher education must speak both French and English. Proficiency in these languages is crucial because these are essential for various professions such as elementary school instructors, researchers, interpreters, and tourism-related jobs. As primary means of communication, these languages are extremely significant (Bon et al., 2022).



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# Research Objectives and Questions

## Research Objectives

1. Develop an adaptive measurement model of the 21<sup>st</sup> century language learning skills (i.e., critical thinking, collaboration, communication, creativity, personal competence, and problem-solving) for early adolescent students in Islamic religious schools and state schools.
2. Compare the levels of the 21<sup>st</sup> century language learning skills in language learning of early adolescent students from Islamic religious schools and state schools in the Cambodian context.

## Research Questions

1. What is the adaptive measurement model of the 21<sup>st</sup> century language learning skills (i.e., critical thinking, collaboration, communication, creativity, personal competence, and problem-solving) among early adolescent students?
2. What are the levels of the 21<sup>st</sup> century language learning skills of early adolescent students from Islamic religious schools and state schools in the Cambodian context?

## Assumptions

This paper assumes that social constructivism impacts early adolescents' 21<sup>st</sup> century language learning skills. It describes the teaching and learning approaches that enhance those language learning skills. It treats 21<sup>st</sup> century learning skills as dependent variables, and different types of schools as independent variables. However, it should be noted that schools might apply different teaching methods that affect 21<sup>st</sup> century learning skills.

## Scope of the Study

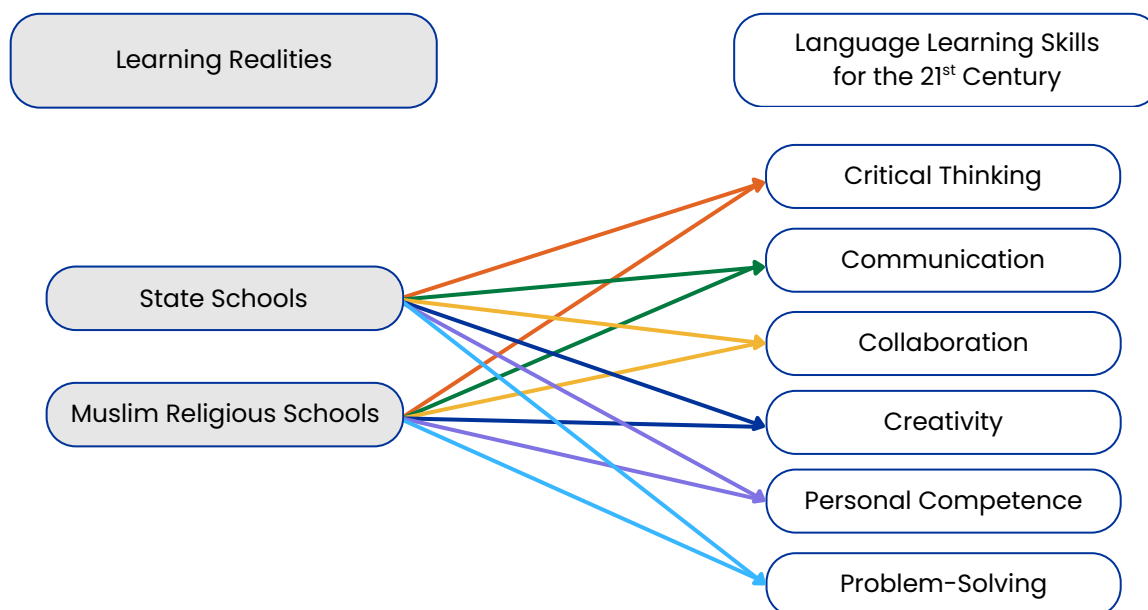
This study aims to contribute to existing knowledge of how contextual variations in learning settings determine the acquisition of 21<sup>st</sup> century skills in language subjects, specifically Khmer and Arabic. It was conducted among Grade 6 (aged 12-13) students in Islamic religious schools and state schools in Cambodia. Moreover, since language learning which may include reading, writing, and reciting songs or poems is essential for early adolescents in these distinct contexts, the study focused on the language learning domain as the primary area of investigation in the survey. This survey was conducted in October 2023 when students almost finished their academic years.

## Limitations of the Study

Due to time and resource constraints, this study only sought to determine the level of the 21st century language learning skills of early adolescent students from Islamic religious schools and state schools in Cambodia. It focused on specific 21st century language learning skills, particularly critical thinking, collaboration, communication, creativity, personal competence, and problem-solving. Methodologically, the researchers employed adaptive tools and conducted exploratory factor analysis to assess the construct validity of learning skills among early adolescents in both Islamic religious schools and state schools. While Multivariate Analysis of Variance (MANOVA) was used as the statistical tool for causal-comparative analysis, its application may extend beyond data comparison to running measurements of variants.

## Research Framework

This conceptual framework was extracted from Kelly and colleagues, 2019, Flemig & Watts, 1980 and Bugen & Hawkin, 1981. The main concept is to study the current levels of language learning skills for the 21st century (critical thinking, communication, collaboration, creativity, personal competence, and problem-solving skills) of learning realities among the students in state schools and Islamic religious schools.



Learning skills conceptual framework extracted from Kelly and colleagues, 2019, Fleming & Watts, 1980 and Bugen & Hawkin, 1981.



PART 2

# Research Methodology

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## Research Design

This causal-comparative study primarily examined the dimensions of 21<sup>st</sup> century learning skills among students in different contexts – Islamic religious schools and state schools in Cambodia. It employed a quantitative approach, which allowed researchers to systematically assess and compare the levels of each component of children’s 21<sup>st</sup> century learning skills across different school settings.

## Population and Sampling Design

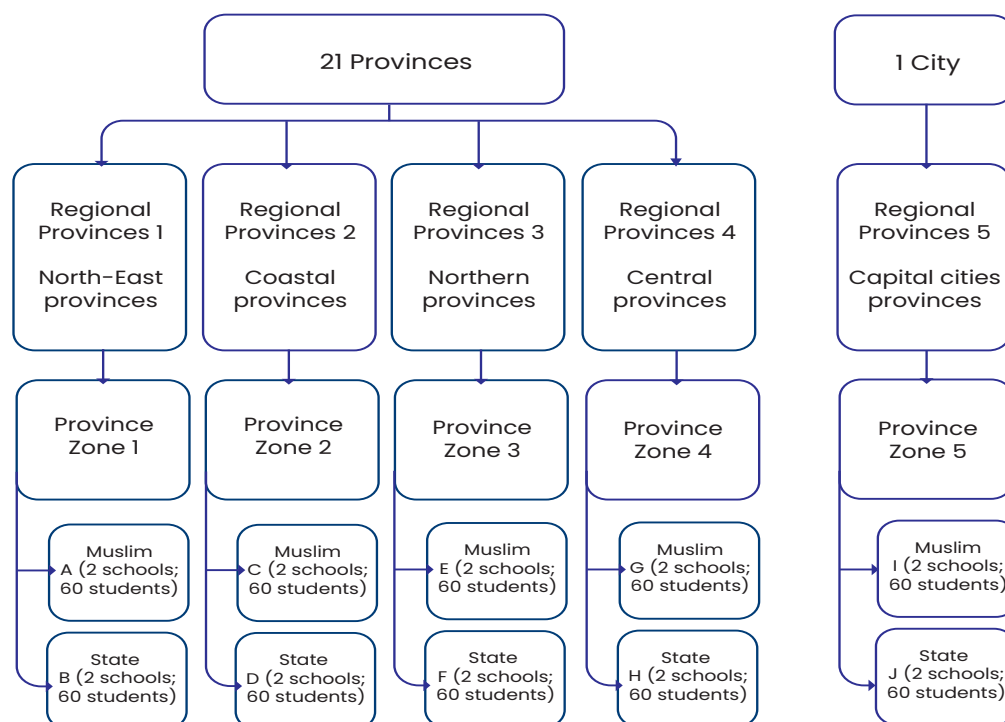
### Population

Grade 6 students aged 12–13 participated in the study. The students were from two groups of school communities—Islamic religious schools and state schools in Phnom Penh and other provinces in Cambodia. State schools were usually from each commune of Cambodia. Since the researchers conducted a comparative study, these two types of schools must be located in the same area to minimize the effects of geographical and living environments on learning contexts and competencies. This population was chosen because they are (1) in the early adolescent stage, during which the learning skills should be developed; (2) in the transition stage from primary to secondary school; and (3) in the complex language learning levels of primary schools.

### Sampling Method

A stratified sampling technique was used to randomize the selection of study sites and participants. This approach involved dividing the population into strata based on location, including the capital city and various provinces. A total of 20 schools were selected, which included two from the capital city and eight from the five provincial zones. Among those, five Islamic religious schools and state schools were equally selected through lucky draw techniques. Systematic-random-selection techniques were used to select provincial and school zones. The researchers utilized a student list to select 60 students from each of the 10 randomly selected schools. Participants from each school had an equal opportunity to be selected systematically for this study. A total of 592 of the 600 (99%) target participants were able to complete the survey. Figure 2 illustrates the sampling method.

**Figure 2.**  
Sampling Design



There were slightly more participants from state schools (304) than from Islamic religious schools (288). Further, there were more male (332) than female (257) survey respondents. Table 1 shows the breakdown of participants by type of school and sex assigned at birth.

**Table 1.**  
Distribution of participants

Types of Schools	Numbers of Participants					
	Total	%	Male (N)	%	Female (N)	%
State School	304	51.40%	179	59.30	123	40.70
Islamic Religious Schools	288	48.60%	153	53.30	134	46.70
<b>Total</b>	<b>592</b>	<b>100%</b>	<b>332</b>	<b>56.08</b>	<b>257</b>	<b>43.41</b>

## Research Instrument

The primary research instrument, the survey questionnaire focused on 21<sup>st</sup> century learning skills of sixth-grade learners. The tool was designed on the basis of a 21<sup>st</sup> century learning skills survey questionnaire earlier developed by different researchers. This study partially used the 4C 21<sup>st</sup> century skills questionnaire developed by Kelley and colleagues (2019). It was an instrument designed to measure learning skills of the 21<sup>st</sup> century among secondary school students and consisted of 4 dimensions with 30 items. There was an uneven number of criteria to measure each skill; for instance, there were 11 items in critical thinking; nine items in collaboration; five items in communication; and another five items in creativity (e.g., elaborate and improve on ideas). The existing psychological properties of this measure ( $\alpha=.878$  to  $\alpha=.749$ ) were observed at optimal levels. Respondents were asked to express to assess their ability with each skill through a 7-point Likert scale.

Additionally, personal competence, which is rarely included in assessing learners' competencies, was measured in terms of confidence in scholastic ability and problem-solving skills. This study adapted the four-item scale of Confidence on Scholastic Ability developed by Fleming & Watts (1980) to measure students' confidence in their personal competence. The scale consisted of sub-dimensions such as self-evaluation regarding school assignments and concern toward schoolwork. Further, the researchers used a measure of problem-solving skills extracted from a sub-dimension of transactional skills in the Coping Assessment Battery originally developed by Bugen & Hawkins (1981). This was a 9-item scale that measures how an individual addresses the problem. Thus, these variables were extra dimensions put into the model to be tested statistically. Again, a 7-point Likert scale was used to rate problem-solving and personal competence.

The final questionnaire was developed by checking IOC. The researchers conducted thorough content, face, and construct validity procedures to obtain the rating scores and comments from at least five experts. This ensured that the instrument was reliable and valid before launching the data gathering. The researchers likewise made sure to contextualize the contents of each variable to fit the local language and its meaning. The final items were translated into the Cambodian language by applying a back translation process before they were piloted among participants prior to administering the final survey.



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## Research Procedures

The research entailed a 4-phase data collection process, that allowed the team to thoroughly examine 21st century learning skills among learners from Islamic religious schools and state schools in Cambodia.

1. First, a desk review was carried out to understand and explore the concepts of learning and principles of 21st century skills among children. Through this review, the researchers identified the various learning contexts and cultural backgrounds that shape 21st-century skills.
2. Second, a survey tool was developed by adapting relevant questions from existing similar surveys, to assess the acquisition of 21st century skills in Cambodian children's contexts.
3. Third, the survey instrument was administered to Grade 6 learners from 10 Islamic school communities and 10 Khmer general communities, to allow for comparison of the different levels of learners from Islamic religious schools and state schools in the Cambodian context.
4. Finally, the researchers analyzed the quantitative data and reported the findings.

## Data Analysis

This research aims to explain the similarities and differences between the existing learning skill levels of the 21<sup>st</sup> century among learners from Islamic religious schools and state schools in Cambodia. In addition to generating descriptive statistics, the study employed MANOVA since this study aimed to examine levels of the six 21<sup>st</sup> century language learning skills as outcome variables. These variables were examined individually as a causal-comparative among the independent variables – the two different school types. The researchers then assessed difference or similarity levels between each pair by checking significance, and the mean levels were revealed statistically.

A woman wearing a light blue hijab and glasses perched on her head is looking intently at a tablet computer. The image has a blue overlay and a blurred background with warm bokeh lights. The text 'PART 3' is in orange, and 'Research Results' is in white.

PART 3

# Research Results

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This section presents the preliminary findings in response to the two research questions. It primarily focuses on validating the existing instruments for assessing 21<sup>st</sup> century language learning skills among students in Islamic religious and state schools, and comparing the levels of these learning skill categories in the two educational contexts.

## Preliminary Data Analysis

The researchers checked for normal distribution, which was measured by the skewness and kurtosis of each item (Manion & Morrison, 2018). Typically, skewness values between -1 to +1 and kurtosis values between -1.96 to +1.96 are considered acceptable (Hair et al., 2019). In this study, the skewness values ranged between -0.90 and +0.64, while the kurtosis values ranged between -1.03 and +1.00, indicating that all items fell within the acceptable range (see Table 2).

**Table 2.**

*Descriptive statistics of the variables*

Variables	Mean	SD	Min	Max	Skewness	Kurtosis
Critical Thinking	2.96	0.37	1.83	4.00	0.25	0.54
Collaboration	3.18	0.42	1.67	4.00	-0.02	-0.3
Communication	3.1	0.43	1.75	4.00	-0.24	0.2
Creativity	3.11	0.42	1.75	4.00	-0.12	0.002
Personal Competence	2.7	0.7	1	4.00	0.28	-0.47
Problem-Solving	2.84	0.52	1	4.00	-0.7	1.57

As shown in Table 2, learners in each school have the highest mean scores in collaboration skills ( $M=3.18$ ,  $SD=.42$ ). This suggests that learners tend to obtain better language learning skills in terms of collaboration as the teachers have organized teaching and learning activities such as think-pair-share, peer-help-seeking, and group discussions in language learning, specifically in Khmer literature and Arabic language classes. Meanwhile, personal competence obtained the lowest mean scores ( $M=2.7$ ,  $SD=.7$ ), which could suggest that most students have low personal competence skills in learning languages as teachers did not provide the learners with any activities to promote this particular skill set. It could be that more focus was given on enhancing learners' hard skills like reading, writing, listening, and speaking rather than on personal competence skills in learning the language.

## Main Findings

### **The Adaptive Measurement Model of 21<sup>st</sup> Century Learning Skills among Early Adolescent Students in Islamic Religious and State Schools**

#### Construct Validity of Items (Islamic Religious Schools)

To evaluate construct validity, the researchers conducted an exploratory factor analysis of the responses from learners in Islamic religious schools. The results indicated intercorrelations between variables or items, with values exceeding 0.85 (Kline, 2005, p. 56). Additionally, Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity results were examined. This was followed by an analysis of the statements' common factor variance values, an examination of the eigenvalue line graph, results from the principal components analysis, and the application of the "varimax" rotation technique to obtain interpretable factors. Table 3 summarizes these results. In addition, some items were excluded due to their factor loading value lower than .5 according to Hair et al., 2019.

After conducting a confirmatory factor analysis for each dimension, some statements were excluded to contextualize the 21<sup>st</sup> century language learning skills for early adolescent students in Islamic religious schools. For instance, only 6 items of 10 critical thinking skills, 7 items out of 9 collaboration skills, 4 items out of 5 communication skills, 4 items out of 5 creativity skills, 3 items out of 4 personal competence skills, and 7 items out of 9 items remained as the language learning skills for early adolescent students in this type of schools. The statements were retained because their loading factors were higher than .05, consistent with the values deemed acceptable by Hair and colleagues (2019).

**Table 3.***Results of exploratory factor analysis for Islamic religious schools*

Variables	Original Items	Remaining Items	Statements	Rotated Factor Loading Values	KMO
<b>Critical Thinking Skills</b>	10	6	I am confident in my ability to revise drafts and justify revisions with evidence when I perform the academic tasks of this language class.	0.62	0.71
			I am confident in my ability to create new, unique, surprising ideas when I perform the academic tasks of this language class.	0.61	
			I am confident in my ability to evaluate reasoning and evidence that support an argument when I perform the academic tasks of this language class.	0.57	
			I am confident in my ability to create ideas geared to the intended teacher or peers when I perform the academic tasks of this language class.	0.69	
			I am confident in my ability to understand questions that lead to critical thinking in studying this language.	0.59	
			I am confident in my ability to gather relevant and sufficient information from different sources when I perform the academic tasks of this language class.	0.62	

**Table 3.***Results of exploratory factor analysis for Islamic religious schools (cont.)*

Variables	Original Items	Remaining Items	Statements	Rotated Factor Loading Values	KMO
<b>Collab- oration Skills</b>	9	7	I am confident in my ability to be polite and kind to teammates when I perform the academic tasks of this language class.	0.65	0.72
			I am confident in my ability to make sure all team members' ideas are equally valued when I perform the academic tasks as group work of this language class.	0.51	
			I am confident in my ability to help others in their work when needed in this language studying activity.	0.69	
			I am confident in my ability to improve my own work after I get feedback when I perform the academic tasks of this language class.	0.58	
			I am confident in my ability to use appropriate body language during presentations in the language classes.	0.56	
			I am confident in my ability to come physically and mentally prepared each day to participate in studying this the language class.	0.61	
			I am confident in my ability to follow rules for team decision-making when I perform the academic tasks as group work of this language class.	0.68	

**Table 3.***Results of exploratory factor analysis for Islamic religious schools (cont.)*

Variables	Original Items	Remaining Items	Statements	Rotated Factor Loading Values	KMO
<b>Communication Skills</b>	5	4	I am confident in my ability to use time and study this language efficiently.	0.54	0.63
			I am confident in my ability to organize information well to perform the academic tasks of this language class.	0.59	
			I am confident in my ability to monitor our team's progress toward goals and deadlines when I perform the academic tasks as group work of this language class.	0.68	
			I am confident in my ability to present all information clearly, consistently, and logically when I perform the academic tasks of this language class.	0.62	
<b>Creativity Skills</b>	5	4	I am confident in my ability to understand how knowledge or insights of this language class might transfer to other situations or context.	0.54	0.63
			I am confident in my ability to find sources of information and aspiration in performing the academic tasks of this language class when others do not.	0.59	
			I am confident in my ability to adapt a communication style appropriate for the purpose, task, or teachers when I perform the academic tasks of this language class.	0.68	
			I am confident in my ability to elaborate and improve on ideas when I perform the academic tasks of this language class.	0.62	

**Table 3.***Results of exploratory factor analysis for Islamic religious schools (cont.)*

Variables	Original Items	Remaining Items	Statements	Rotated Factor Loading Values	KMO
<b>Personal Competence Skills</b>	4	3	I am not concerned/worried when I have to read and understand the essay for an assignment in this language class.	0.76	0.61
			In this language learning class, I am not concerned when I have to write a convincing argument for my teacher who may disagree.	0.72	
			I often have no trouble expressing my ideas trying to write them for a class assignment of this language class.	0.74	
<b>Problem-Solving Skills</b>	9	7	In this language learning class, I am not concerned when I have to write a convincing argument for my teacher who may disagree.	0.75	0.76
			I often have no trouble expressing my ideas trying to write them for a class assignment of this language class	0.52	
			Whenever I have a problem in studying this language, I determine which information is reliable and valid in dealing with any problem.	0.57	
			Whenever I have a problem in studying this language, I predict possible outcomes to various solutions.	0.70	
			Whenever I have a problem in studying this language, I estimate the probability that a certain outcome of a solution will occur.	0.74	

**Table 3.***Results of exploratory factor analysis for Islamic religious schools (cont.)*

Variables	Original Items	Remaining Items	Statements	Rotated Factor Loading Values	KMO
			Whenever I have a problem in studying this language, I will normally place possible outcomes of a solution in rank order according to their desirability.	0.63	
			Whenever I have a problem in studying this language, I narrow down the number of alternatives to a few which have a good chance of obtaining the desired outcome.	0.58	

Construct Validity of Items (State Schools)

An exploratory factor analysis was also conducted to test construct validity in state schools. Likewise, results indicated that there is intercorrelation between variables or items based on a value higher than 0.85 (Kline, 2005, p. 56). The tests conducted to assess construct validity in Islamic religious schools were likewise performed for state schools. Table 4 summarizes these results.

Similar to the process for assessing construct validity for Islamic religious schools, after conducting a confirmatory factor analysis, the authors excluded some items to contextualize of the 21<sup>st</sup> century language learning skills for early adolescent students in state schools. In the final questionnaire, only 8 items of 10 critical thinking skills, 4 items out of 9 collaboration skills, 5 items out of 5 communication skills, 3 items out of 5 creativity skills, 3 items out of 4 personal competence skills, and 6 items out of 9 items remained as the language learning skills for early adolescent students in state schools. Again, these were retained because their loading factors exceeded .05, as established by Hair and colleagues in 2019.

**Table 4.***Results of exploratory factor analysis for state schools*

Variables	Original Items	Remaining Items	Statement	Rotated Factor Loading Values	KMO
<b>Critical Thinking Skills</b>	10	8	I am confident in my ability to revise drafts and justify revisions with evidence when I perform the academic tasks of this language class.	0.67	0.71
			I am confident in my ability to develop follow-up questions that focus or broaden inquiry when I study this language.	0.73	
			I am confident in my ability to identify in detail what needs to be known to answer a scientific inquiry in studying this language.	0.51	
			I am confident in my ability to evaluate reasoning and evidence that support an argument when I perform the academic tasks of this language class.	0.66	
			I am confident in my ability to develop follow-up questions to gain understanding of the wants and needs of the teacher or peers in studying this language.	0.59	
			I am confident in my ability to combine different elements into a complete concept when I perform the academic tasks of this language class.	0.63	
			I am confident in my ability to understand questions that lead to critical thinking in studying this language.	0.68	
			I am confident in my ability to gather relevant and sufficient information from different sources when I perform the academic tasks of this language class.	0.69	

**Table 4.***Results of exploratory factor analysis for state schools (cont.)*

Variables	Original Items	Remaining Items	Statement	Rotated Factor Loading Values	KMO
<b>Collaboration Skills</b>	9	4	I am confident in my ability to be polite and kind to teammates when I perform the academic tasks of this language class.	0.65	0.72
			I am confident in my ability to make sure all team members' ideas are equally valued when I perform the academic tasks as group work of this language class.	0.51	
			I am confident in my ability to help others in their work when needed in this language studying activity.	0.69	
			I am confident in my ability to improve my own work after I get feedback when I perform the academic tasks of this language class.	0.58	
<b>Communication Skills</b>	5	5	I am confident in my ability to use time and study this language efficiently.	0.60	0.81
			I am confident in my ability to organize information well to perform the academic tasks of this language class.	0.60	
			I am confident in my ability to monitor our team's progress toward goals and deadlines when I perform the academic tasks as group work of this language class.	0.57	
			I am confident in my ability to complete tasks without any reminders when I engage in the language studying activities.	0.57	
			I am confident in my ability to present all information clearly, consistently, and logically when I perform the academic tasks of this language class.	0.66	

**Table 4.***Results of exploratory factor analysis for state schools (cont.)*

<b>Variables</b>	<b>Original Items</b>	<b>Remaining Items</b>	<b>Statement</b>	<b>Rotated Factor Loading Values</b>	<b>KMO</b>
<b>Creativity Skills</b>	5	3	I am confident in my ability to understand how knowledge or insights of this language class might transfer to other situations or context.	0.70	0.65
			I am confident in my ability to help the team solve problems and manage conflicts when I perform the academic tasks as group work of this language class.	0.74	
			I am confident in my ability to adapt a communication style appropriate for the purpose, task, or teachers when I perform the academic tasks of this language class.	0.68	
<b>Personal Competence Skills</b>	4	3	I am not concerned/worried when I have to read and understand the essay for an assignment in this language class.	0.78	0.66
			In this language learning class, I am not concerned when I have to write a convincing argument for my teacher who may disagree.	0.70	
			I often have no trouble expressing my ideas trying to write them for a class assignment of this language class.	0.79	

**Table 4.***Results of exploratory factor analysis for state schools (cont.)*

Variables	Original Items	Remaining Items	Statement	Rotated Factor Loading Values	KMO
<b>Problem-Solving Skills</b>	9	6	Whenever I have a problem in studying this language, I collect and evaluate much information needed to deal with any problem.	0.78	0.79
			Whenever I have a problem in studying this language, I determine which information is reliable and valid in dealing with any problem.	0.66	
			Whenever I have a problem in studying this language, I predict possible outcomes to various solutions.	0.67	
			Whenever I have a problem in studying this language, I will normally place possible outcomes of a solution in rank order according to their desirability.	0.52	
			Whenever I have a problem in studying this language, I narrow down the number of alternatives to a few which have a good chance of obtaining the desired outcome.	0.55	
			Whenever I have a problem in studying this language, I determine both the short-and long-term consequence of any possible action.	0.64	

Construct Validity of Items (Islamic Religious Schools and State Schools)

In terms of running a construct validity, Exploratory Factor Analysis (EFA) of Islamic religious schools and state schools was also conducted. The result of EFA indicated that there is intercorrelation between variables or items based on a value that was higher than 0.85 (Kline, 2005, p. 56). Moreover, primarily Kaiser-Meyer-Olkin (KMO) and Bartlett Sphericity tests results were examined, followed by the common factor variance values for the items, eigenvalue line graph, principal components analysis results, and “varimax” rotation technique results, conducted to obtain interpretable variables (see Table 5).

**Table 5.***Results of exploratory factor analysis for both schools*

Variables	Original Items	Remaining Items	Statement	Rotated Factor Loading Values	KMO
<b>Critical thinking Skills</b>	10	7	I am confident in my ability to understand questions that lead to critical thinking in studying this language.	0.66	0.80
			I am confident in my ability to create ideas geared to the intended teacher or peers when I perform the academic tasks of this language class.	0.56	
			I am confident in my ability to combine different elements into a complete concept when I perform the academic tasks of this language class.	0.54	
			I am confident in my ability to identify in detail what needs to be known to answer a scientific inquiry in studying this language.	0.52	
			I am confident in my ability to develop follow-up questions that focus or broaden inquiry when I study this language.	0.75	
			I am confident in my ability to gather relevant and sufficient information from different sources when I perform the academic tasks of this language class.	0.67	
			I am confident in my ability to revise drafts and justify revisions with evidence when I perform the academic tasks of this language class.	0.57	

**Table 5.***Results of exploratory factor analysis for both schools (cont.)*

Variables	Original Items	Remaining Items	Statement	Rotated Factor Loading Values	KMO
<b>Collab- oration Skills</b>	9	6	I am confident in my ability to follow rules for team decision-making when I perform the academic tasks as group work of this language class.	0.64	0.80
			I am confident in my ability to make sure all team members' ideas are equally valued when I perform the academic tasks as group work of this language class.	0.57	
			I am confident in my ability to improve my own work after I get feedback when I perform the academic tasks of this language class.	0.55	
			I am confident in my ability to acknowledge and respect other perspectives when I perform the academic tasks as group work of this language class.	0.55	
			I am confident in my ability to come physically and mentally prepared each day to participate in studying this the language class.	0.54	
			I am confident in my ability to help others in their work when needed in this language studying activity.	0.53	

**Table 5.***Results of exploratory factor analysis for both schools (cont.)*

Variables	Original Items	Remaining Items	Statement	Rotated Factor Loading Values	KMO
<b>Communication</b>	5	4	I am confident in my ability to monitor our team's progress toward goals and deadlines when I perform the academic tasks as group work of this language class.	0.67	0.69
			I am confident in my ability to present all information clearly, consistently, and logically when I perform the academic tasks of this language class	0.63	
			I am confident in my ability to use time and study this language efficiently.	0.6	
			I am confident in my ability to help others in their work when needed in this language studying activity.	0.57	
<b>Creativity Skills</b>	5	5	I am confident in my ability to adapt a communication style appropriate for the purpose, task, or teachers when I perform the academic tasks of this language class.	0.64	0.70
			I am confident in my ability to find sources of information and aspiration in performing the academic tasks of this language class when others do not.	0.62	
			I am confident in my ability to elaborate and improve on ideas when I perform the academic tasks of this language class.	0.59	

**Table 5.***Results of exploratory factor analysis for both schools (cont.)*

Variables	Original Items	Remaining Items	Statement	Rotated Factor Loading Values	KMO
			I am confident in my ability to help the team solve problems and manage conflicts when I perform the academic tasks as group work of this language class.	0.58	
			I am confident in my ability to understand how knowledge or insights of this language class might transfer to other situations or context.	0.58	
<b>Personal Competence Skills</b>	4	3	I often have no trouble expressing my ideas trying to write them for a class assignment of this language class.	0.77	0.63
			I am not concerned/worried when I have to read and understand the essay for an assignment in this language class.	0.75	
			In this language learning class, I am not concerned when I have to write a convincing argument for my teacher who may disagree.	0.73	
<b>Problem-Solving Skills</b>	9	4	Whenever I have a problem in studying this language, I estimate the probability that a certain outcome of a solution will occur.	0.70	0.80
			Whenever I have a problem in studying this language, I predict possible outcomes to various solutions	0.68	

**Table 5.***Results of exploratory factor analysis for both schools (cont.)*

Variables	Original Items	Remaining Items	Statement	Rotated Factor Loading Values	KMO
			Whenever I have a problem in studying this language, I will normally place possible outcomes of a solution in rank order according to their desirability.	0.66	
			Whenever I have a problem in studying this language, I determine which information is reliable and valid in dealing with any problem.	0.53	

After conducting a confirmatory factor analysis, some items within each dimension were excluded to contextualize the 21<sup>st</sup> century language learning skills for early adolescent students in Islamic religious schools and state schools. For instance, as Table 5 shows, only 7 items of 10 critical thinking skills, 6 items out of 9 collaboration skills, 4 items out of 5 communication skills, 3 items out of 4 personal competence skills, and 4 items out of 9 items remained as the language learning skills for early adolescent students in state schools. Those items were retained because their loading factors were higher than .05, according to Hair and colleagues (2019).

## MANOVA Analysis Results

### Comparison of the Levels of 21st Century Learning Skills among Early Adolescent Students in Islamic Religious Schools and State Schools in Cambodia

As shown in Table 6, results of Box's test of equality of covariance matrices reveal significantly different levels of 21<sup>st</sup> century language learning skills among early adolescent students in both Islamic religious and state schools in Cambodia.

**Table 6.**

*Box's test of equality of covariance matrices for per statement*

Box's M	F-Value	df1	df2	Sig.
784.13	1.71	435	1047412.26	0

Meanwhile, as Table 7 illustrates, the language learning skills for each dimension ranged from M=2.20 to M=3.40 out of 4.00 for both school types. The item "I am confident in my ability to organize information well to perform the academic tasks of this language class" was observably higher than other learning items in the state school context (M=3.40, SD=.69). The statement "I am confident in my ability to help the team solve problems and manage conflicts when I perform the academic tasks as group work of this language class" was highest in Islamic schools (M=3.36, SD=.59). For both state and Islamic religious schools, the item "In this language learning class, I am not concerned when I have to write a convincing argument for my teacher who may disagree" received the lowest rating (M=2.20, SD=.91).

Based on the multivariate analysis, significant differences were found in learners from Islamic schools and state schools, with 11 of 29 dependent variables having a p-value less than .05. These differences were observed in 1 out of 7 critical thinking skills items, 3 out of 6 collaboration skills items, 4 out of 5 creativity skills items, 1 out of 3 personal competence skills items, and 2 out of 4 problem-solving skills. Items marked with an asterisk in Table 7 highlight these items.

**Table 7.**  
MANOVA results per statement

Variables	Statements	MANOVA		Islamic Schools		State Schools	
		P	F-Value	M	SD	M	SD
Critical Thinking Skills	I am confident in my ability to revise drafts and justify revisions with evidence when I perform the academic tasks of this language class.*	0.00	9.21	2.94	0.51	3.06	0.52
	I am confident in my ability to develop follow-up questions that focus or broaden inquiry when I study this language.	0.11	2.64	2.99	0.72	2.89	0.75
	I am confident in my ability to identify in detail what needs to be known to answer a scientific inquiry in studying this language.	0.07	3.28	3.00	0.67	3.10	0.65
	I am confident in my ability to create ideas geared to the intended teacher or peers when I perform the academic tasks of this language class.	0.15	2.06	3.08	0.70	3.16	0.68
	I am confident in my ability to combine different elements into a complete concept when I perform the academic tasks of this language class.	0.87	0.03	3.03	0.64	3.07	0.65
	I am confident in my ability to understand questions that lead to critical thinking in studying this language.	0.11	2.57	2.75	0.78	2.91	0.48
	I am confident in my ability to gather relevant and sufficient information from different sources when I perform the academic tasks of this language class.	0.86	0.03	2.88	0.64	2.97	0.70

Variables	Statements	MANOVA		Islamic Schools		State Schools	
		P	F-Value	M	SD	M	SD
Collaboration Skills	I am confident in my ability to make sure all team members' ideas are equally valued when I perform the academic tasks as group work of this language class.*	0.02	5.13	3.23	0.72	3.36	0.67
	I am confident in my ability to help others in their work when needed in this language studying activity.	0.12	2.44	3.19	0.69	3.28	0.70
	I am confident in my ability to improve my own work after I get feedback when I perform the academic tasks of this language class.*	0.00	37.49	2.81	0.70	3.18	0.75
	I am confident in my ability to come physically and mentally prepared each day to participate in studying this the language class.*	0.00	16.12	3.32	0.65	3.52	0.56
	I am confident in my ability to follow rules for team decision-making when I perform the academic tasks as group work of this language class.	0.15	2.06	3.04	0.79	3.13	0.74
Communication Skills	I am confident in my ability to use time and study this language efficiently.	0.06	3.56	3.30	0.67	3.40	0.69
	I am confident in my ability to organize information well to perform the academic tasks of this language class.	0.21	1.55	2.99	0.69	3.40	0.69
	I am confident in my ability to monitor our team's progress toward goals and deadlines when I perform the academic tasks as group work of this language class.	0.36	0.84	3.06	0.63	3.01	0.76
	I am confident in my ability to present all information clearly, consistently, and logically when I perform the academic tasks of this language class.	0.06	3.55	3.01	0.65	3.11	0.62

Variables	Statements	MANOVA		Islamic Schools		State Schools	
		P	F-Value	M	SD	M	SD
Creativity Skills	I am confident in my ability to understand how knowledge or insights of this language class might transfer to other situations or context.*	0.00	21.35	2.99	0.75	3.27	0.69
	I am confident in my ability to find sources of information and aspiration in performing the academic tasks of this language class when others do not.*	0.00	15.54	2.99	0.75	3.33	0.69
	I am confident in my ability to help the team solve problems and manage conflicts when I perform the academic tasks as group work of this language class.	0.99	0.00	3.36	0.59	3.33	0.54
	I am confident in my ability to adapt a communication style appropriate for the purpose, task, or teachers when I perform the academic tasks of this language class.*	0.02	5.37	3.03	0.66	3.15	0.60
	I am confident in my ability to elaborate and improve on ideas when I perform the academic tasks of this language class.*	0.02	5.65	2.82	0.79	2.96	0.65
Personal Competence Skills	I am not concerned/worried when I have to read and understand the essay for an assignment in this language class.	0.74	0.11	2.85	0.96	2.88	1.04
	In this language learning class, I am not concerned when I have to write a convincing argument for my teacher who may disagree.*	0.00	32.16	2.62	0.86	2.20	0.91
	I often have no trouble expressing my ideas trying to write them for a class assignment of this language class.	0.88	0.02	2.83	0.86	2.21	0.91

Variables	Statements	MANOVA		Islamic Schools		State Schools	
		P	F-Value	M	SD	M	SD
Prob- lem-Solving Skills	Whenever I have a problem in studying this language, I determine which information is reliable and valid in dealing with any problem.	0.10	2.74	2.94	0.88	3.05	0.76
	Whenever I have a problem in studying this language, I predict possible outcomes to various solutions.	0.29	1.11	2.73	0.75	2.80	0.72
	Whenever I have a problem in studying this language, I estimate the probability that a certain outcome of a solution will occur.*	0.04	4.26	2.76	0.79	2.90	0.71
	Whenever I have a problem in studying this language, I will normally place possible outcomes of a solution in rank order according to their desirability.*	0.00	16.50	2.65	0.85	2.90	0.70

Note. Items marked with an asterisk\* are those with p values <.05.

Results of Box's test (Table 8) suggest that equality of variance was significant with p-value =.05, meaning there was an unequal variance among Islamic and state schools. Pillai's test was therefore recommended for the interpretation of MANOVA output. Table 9 shows test results revealing that different types of schools were significantly different in terms of critical thinking, collaboration, communication, creativity, personal competence, and problem-solving skills (p-value =.00).

**Table 8.**

*Box's test of equality of covariance matrices*

Box's M	F-Value	df1	df2	Sig.
78.345	1.88	21	1272485.31	0

**Table 9.**

*Pillai's test result*

Pillai's test	Value	F	P
<b>Schools</b>	0.75	7.92	0

The learning skills of each component in both school types ranged from M=2.64 to M=3.25 out of 4.00. As Table 10 illustrates, among the six learning skills, collaboration and creativity were observably higher than other learning components, with respective values of M=3.11 and M=3.18 in Islamic schools, and M=3.25 and M=3.18 in state schools. Personal competence and problem-solving skills levels fared lower than other components in Islamic schools (M=2.77) and state schools (M=2.64, M=2.91).

Multivariate analysis across four dependent variables (i.e., collaboration, creativity, personal competence, and problem-solving) reveals significant differences between Islamic schools and state schools, with p-values less than .05. In contrast, the two other dependent variables (critical thinking and communication), do not show significant differences. These findings indicate variations in effect sizes in terms of collaboration, creativity, personal competence, and problem-solving skills, perhaps influenced by the types of schools that students attend.

**Table 10.**  
*Summary of MANOVA results across the schools*

Items	MANOVA		Islamic religious schools		State schools	
	P	F-Value	M	SD	M	SD
Critical thinking skills	0.07	3.34	2.93	0.35	2.98	0.38
Collaboration skills	0	18.68	3.11	0.38	3.25	0.42
Communication skills	0.65	0.21	3.09	0.41	3.11	0.45
Creativity skills	0	15.34	3.18	0.43	3.18	0.40
Personal competence skills	0.02	5.13	2.77	0.66	2.64	0.73
Problem-solving skills	0	3.34	2.77	0.56	2.91	0.48



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A photograph of two young women, likely students, wearing white hijabs and light blue school uniforms. They are standing together, looking at a laptop held by the woman on the right. The woman on the left is also holding a stack of papers. They are both smiling. The background is a blurred indoor setting with wooden paneling and a staircase. The image has a blue color overlay.

PART 4

# Discussion

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The research findings on 21<sup>st</sup> century language learning skills among learners from Islamic religious schools and state schools in Cambodia reflect differences arising from varying learning contexts. In addition, this study lends new insights vital to the field of adolescent education.

## Overall Discussion

In general, Cambodian primary school students lag behind modern language learning, which emphasizes higher levels of language application as described in Bloom's Taxonomy (Chhinh & Tabata, 2003). Students' overall language learning skills levels across the six dimensions were just slightly above average (M=2.98; Max=4.00). This may be indicative of the reality that classroom learning activities are dominated by surface-level learning techniques. This approach cultivates an understanding of key concepts, with only occasional practice or application of learning. These findings are particularly relevant, given that this area of study is just emerging in the Cambodian context, and is informed by researchers' expertise and experiences.

### Strengths and Weaknesses in Language Learning Skills

The **strengths in collaboration learning skills** (M=3.25; Max=4.00) among students might be related to collective cultural patterns that have been influenced by family and school environments. Having been influenced by a sense of belongingness, the students in this context engage in performing academic tasks collaboratively to succeed together. These activities enhance learners' active academic ownership and teamwork by encouraging respect for others' perspectives, valuing group members equally, offering and seeking help, addressing constructive feedback jointly, and making decisions collectively. As a result, competition and the desire to outperform others are less likely to be prevalent in language learning classes in this context.

**Weaknesses in personal competence** among Cambodian primary school students may reflect a lack of confidence and belief in their ability to perform language-related skills. The deficiency in language learning confidence could stem from low self-efficacy, influenced by a cultural mindset among older adults who perceive self-assurance as a sign of pride. Young students are often confident in responding to questions or performing required academic tasks. However, this confidence doesn't always extend to excellent reading comprehension, effective writing, or clear spoken communication. Furthermore, lower personal competency levels can be influenced by classroom contexts that make students feel that making mistakes is shameful or disappointing to the teacher, especially when students lack accuracy and fluency in performing language tasks. To address these attitudes, it is important to design learning environments that encourage learners to make mistakes and learn from them.

## Similarity Levels of Language Learning Skills

The research findings reflect nearly similar levels of **critical thinking and communication skills** among learners from Islamic religious schools and state schools in Cambodia. As the researchers observed, the basic input (reading and listening) and output (speaking and writing) skills offered in both learning contexts are very similar and depend heavily on the nature of language learning subjects, which focus more on practices and drills. The learning outcomes of the language classes were anchored on reading texts and completing questions online. These learning outcomes might not extend the students' cognitive ability to higher-order thinking levels.

Additionally, language learning classes used textbook-based learning methods, memorization, and simple assigned tasks as tools to develop students' cognitive skills. Due to their limited pedagogical skills, teachers in both types of schools may perceive language learning skills as less critical and believe that younger students only need to achieve basic proficiency levels. Effective communication skills need to be developed more effectively through interactive techniques, both in and outside classroom settings. In both these learning contexts, communication skills are limited to organizing information and interaction among group members to allow them to accomplish assigned tasks to meet set deadlines. Similarities in these two types of schools may be explained by common opportunities, use of online tools, and classroom conditions that allow learners to communicate with peers and teachers inside and outside the classroom setting.

## Different Levels of Language Learning Skills

The research findings revealed different levels of collaboration, creativity, personal competence, and problem-solving skills among learners from Islamic religious schools and state schools in Cambodia. Learners in state schools tended to demonstrate higher levels of collaboration, creativity, personal competence, and problem-solving skills than those from Islamic religious schools.

Teaching practices and learning methods that are the core antecedents of skills improvement would be used to discuss the significant difference of those skills among the two learning contexts (Bunlay et al., 2010). The learner-centered method is believed to be more effective than the lecture-based teaching method across learning subjects when applied correctly and adapted to various learning contexts.

The significant difference in collaboration among these school types stems from their distinct classroom environments and teaching methods. As the researchers observed, peer or group work is frequently assigned in state schools. However, in larger classes, students often work with their nearest site partners. They are also encouraged to join groups on platforms such as Telegram or Messenger to share their progress on assigned tasks. This practice reflects the implementation of student-centered learning activities, providing students opportunities to seek help and learn in pairs, thereby enhancing their collaboration skills. In contrast, individual learning activities are more commonly observed in language classes of Islamic religious schools.



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Deep versus surface learning strategies often determine the levels of creativity (Vong & Kaewurai, 2017). Teachers with strong pedagogical skills are crucial in the design and facilitation of deep learning projects. In Cambodia, the shortage of well-trained teachers is a major concern, especially in Islamic religious schools. Many teachers in these schools lack formal pedagogical training. Teachers handling language classes at Islamic religious schools often rely on textbooks, adhering closely to their content. Notably, these textbooks are predominantly focused on religious content from the Koran. Students at Islamic religious schools seem to apply more surface-level (Musa, 2011) or strategic learning strategies to adapt to the requirements of the classes. There is less focus on deep learning strategies, which limit the development of students' creativity. Although both school groups commonly use textbook-based teaching techniques, lessons and related exercises in state schools' textbooks are essentially structured in a way that allows teachers to appropriately modify the lessons. State school teachers encourage students to think innovatively, guiding them as they apply insights gained from lessons to similar situations, expand on learned ideas, and seek relevant information from various sources.

Further, students from state schools demonstrate higher levels of problem-solving skills compared to their counterparts from Islamic religious schools. This may indicate the effectiveness of practical teaching and learning tasks. Problem-solving skills can be developed through well-designed assignments and assessment activities. As the researchers observed, at state schools, various assessments are regularly conducted in every language session throughout the learning process. For instance, completed homework is reviewed in phase 1; new lesson concepts are introduced in phase 2; and knowledge is reviewed and strengthened in phase 3. Learning activities focus on eliciting and introducing problems. Further, in state schools, students are expected to address given problems, and teachers are tasked to provide feedback during each session. This leads to the activation of students' critical thinking and problem-solving skills. As students go through the thinking process, they also seek sources of information that will allow them to make sound decisions. Students likewise learn to anticipate the various solutions and their outcomes. Lower levels of problem-solving skills among students in Islamic religious schools may be a result of learning practices that focus on memorization and basic writing tasks rather than problem-solving tasks.

Similarly, the personal competence skill levels of students in state schools are higher than those of learners in Islamic religious schools. This could be due to differences in their classroom learning environment. Personal competence in language classes among state school students is optimal since students feel that they are able to read and comprehend assigned text, write accurate responses, express their ideas, and convince their teachers to agree to a particular stance. Higher levels of personal competence observed among state school students may be attributed to hands-on and autonomous learning activities. These activities allow students more freedom to develop their skills without the fear of making mistakes and with less pressure to perform solely for evaluation purposes. Furthermore, challenging tasks assigned as part of lessons, along with continuous constructive feedback in state schools provide optimal opportunities to test and enhance students' abilities (Niemic & Ryan, 2009). In contrast, students in language classes at Islamic religious schools may have fewer chances to review their work and adjust their mistakes through immediate feedback.

## Idea-Item Analysis of Language Learning Skills

### Critical Thinking Skills

Among critical thinking skills, the item “I am confident in my ability to create ideas geared to the intended teacher or peers when I perform the academic tasks of this language class” ( $M=3.16$ ,  $SD=.68$ ) has the highest mean score. In addition, this result is consistent for both types of schools (state and Muslim religious schools). Teachers can organize classroom activities that allow learners to work in groups, providing them the space to discuss and share their perspectives with peers. Consequently, these practices can enhance their critical thinking skills.

The lowest rated item among critical thinking skills is the statement “I am confident in my ability to understand questions that lead to critical thinking in studying this language” which demonstrated that Cambodian students feel less confident in their ability to comprehend questions, leading to low levels of critical thinking skills. This may be because most Cambodian teachers teach heavily based on textbooks without linking the contents and activities to real-life situations (Lim & Keuk, 2018). Students thus learn languages in very passive ways, and most of the time, they focus more on reading and writing skills (Dawson, 2009).

### Collaboration Skills

The statement “I am confident in my ability to come physically and mentally prepared each day to participate in studying this language class” received the highest mean score ( $M=3.52$ ,  $SD=.56$ ). Students may feel confident about their preparation to come to class. This implies that the students have the emotional and physical abilities to participate in the language class. This is because they hold positive rapport with teachers, and some activities in the language help students enjoy learning. For instance, teachers may organize fostering activities like group discussions and pre-revision meetings in the language learning class to ensure that students are mentally and physically prepared.

Among collaboration skills, the statement “I am confident in my ability to improve my own work after I get feedback when I perform the academic tasks of this language class” received the lowest mean score ( $M=2.81$ ,  $SD=.70$ ). This may suggest that teacher feedback in language learning classes may still be limited, as most Cambodian teachers do not provide enough constructive feedback that allows students to enhance collaboration in language learning classes. Cambodian students likewise rarely get the chance to receive feedback from their peers, and this lack of feedback could affect the students’ collaboration skills (Bredenberg, 2008). Previous studies have also suggested that language learning classes have similar learning conditions that are crucial to cultivating these two learning skills (collaboration and teamwork skills). The basic input (reading and listening) and output (speaking and writing) skills offered in both learning contexts are very similar and depend heavily on the nature of language learning subjects, which focus more on activities such as practice sessions and drills (Bevan, 2017).

## Communication Skills

Items that measure communication skills received the highest mean scores. Particularly, the statements “I am confident in my ability to use time and study this language efficiently”, and “I am confident in my ability to organize information well to perform the academic tasks of this language class” fared high ( $M=3.40$ ,  $SD=.69$ ). This might be a result of good communication with their teachers and friends. Teachers likewise help students organize information to perform the academic tasks of this language class through group discussion and think-pair-share activities to strengthen their students’ communication skills.

Results likewise suggest that Cambodian students among the two groups have low follow-up and monitoring skills, with the statement “I am confident in my ability to monitor our team’s progress toward goals and deadlines when I perform” receiving the lowest mean scores. Cambodian teachers do not adequately train their students in terms of monitoring and following up, which leads to low competence in communication skills (Crews & Parker, 2017). Cambodian students learn languages in less proactive ways as they aim to master only macro skills such as listening, reading, writing, and speaking.

## Creativity Skills

Among creativity skills, the item with the highest mean ( $M=3.36$ ,  $SD=.59$ ) is “I am confident in my ability to help the team solve problems and manage conflicts when I perform the academic tasks as group work of this language class.” Students demonstrate high levels of creativity skills in terms of conflict resolution, especially when they work as a group in language classes. Cambodian teachers help students foster their critical thinking skills with the ability to solve problems and manage conflicts in language learning classes through problem-based learning activities. Students can then connect what they have learned in language learning classes with real-world situations.

The item ranked lowest in terms of creativity ( $M=2.82$ ,  $SD=$ ) is “I am confident in my ability to elaborate and improve on ideas when I perform the academic tasks of this language class.” The students have a low ability to elaborate and improve on the extended ideas in the language learning classes. It may be difficult for Cambodian students to extend and elaborate their ideas beyond what they have learned in the classes due to the conventional teaching methods and tedious activities. Cambodian teachers are not able to facilitate language learning activities that could help their students extend their elaborative ideas and think innovatively.

## Personal Competence Skills

In terms of personal competence skills, the item with the highest rating ( $M=2.88$ ,  $SD=1.04$ ) is the statement, “I am not concerned/worried when I have to read and understand the essay for an assignment in this language class,”. This may be because Cambodian teachers are likely to organize language learning activities so that students can master reading and writing skills. Students tend to master these two skills rather than critical thinking, collaboration, communication, creativity, and problem-solving skills.

Meanwhile, the personal competence skill rated lowest ( $M=2.20$ ,  $SD=.91$ ) pertains to the statement, "In this language learning class, I am not concerned when I have to write a convincing argument for my teacher who may disagree." This result may suggest that Cambodian students have low abilities and competencies in writing a convincing argument. Most students in writing classes struggle to generate logical and reasonable arguments to support their ideas, which requires their teachers to provide more activities and techniques to promote their argumentative writing skills (Hardman, 1999). Argumentative writing is one of the most difficult skills to cultivate, and requires teachers to have practical skills and knowledge to teach their students (Wright, 2004).

### **Problem-Solving Skills**

Finally, among problem-solving skills, the statement "Whenever I have a problem in studying this language, I determine which information is reliable and valid in dealing with any problem" has the highest mean ( $M=3.05$ ,  $SD=.76$ ). This implies that Cambodian students are adept at solving problems, especially in determining reliable and valid information. This may be because teachers provide language learning activities (e.g., group discussions and simulations) and conducive learning environments that allow learners to critically assess information and view problems from different angles.

The scores for the item, "Whenever I have a problem in studying this language, I will normally place possible outcomes of a solution in rank order according to their desirability" ( $M=2.65$ ,  $SD=.85$ ) suggests that Cambodian students could still improve on systematic thinking skills, particularly as regards organizing information to figure out problems. This may be because teachers did not provide students with sufficient language learning activities to foster their systemic thinking and help them anticipate the outcomes of their problem-solving inputs in the learning environment.



PART 5

# Conclusion

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It is essential to enhance the learning abilities of both majority and minority groups of Cambodian primary learners so that they can succeed academically and consequently lead fulfilling lives. Rather than treating language learning skills as a separate intervention, the most effective approach is to integrate the development of these skills into the instruction of every language topic. With teachers' adequate experience and sustained practice, this method can be refined and effectively applied in real classroom settings.

Study findings emphasize that collaboration skills are particularly strong in both school types, as teachers organize teaching and learning activities like think-pair-share, peer-help-seeking, and group discussions, particularly in Khmer literature and Arabic language classes. Strong collaboration skills consequently enhance students' overall language learning skills.

Notably, students demonstrated the lowest personal competence skills, which may suggest that most students from both schools received inadequate interventions that could have promoted their personal competence. Learners from both schools seemed to focus more on enhancing hard skills like reading, writing, listening, and speaking rather than on personal competence in language learning skills. These findings further suggest the need for Cambodian teachers to concentrate on their teaching methodology and produce a learning environment that will foster learners' personal competence in learning language skills. Even while language courses benefit from drills and repetition, higher cognitive learning methodologies that enhance creativity could facilitate the language learning process.

Moreover, self-regulated learning encompasses both cognitive learning and self-regulation techniques, which are critical components in the formation of learning attitudes and competencies that can allow Cambodian students to meet both lifelong learning objectives and greater academic achievement. Cooperative or scaffolding learning approaches must be employed to maintain students' strong collaborative learning skills. Enhancing other language learning skills should start with this crucial ability. Rehearsal approaches, which are learning strategies derived from behaviorism, are likewise appropriate for language acquisition; however, they should be used in conjunction with other strategies to help learners approach higher-order thinking and long-term memory. In addition, while the constructivist perspectives-based learner-centered learning approach is beneficial for language acquisition, it should be applied in a way that adapts to the collective cultural context so that students with lower ability levels can collaborate with peers productively and harmoniously.

## Policy Options

Informed by the results of this paper, Cambodia's Ministry of Education, Youth, and Sport's Department of Curriculum and Instruction, along with relevant departments, should develop guidelines to improve early adolescent students' 21<sup>st</sup> century language learning skills for all schools. They must also educate relevant stakeholders about the advantages of improving learning skills, particularly among minority students.

Meanwhile, teachers in elementary schools throughout Cambodia, especially those from underrepresented groups, should be encouraged to participate in capacity development activities related to 21<sup>st</sup> century language learning skills. Participation in meaningful capacity development activities will empower them to create interventions to improve those crucial learning abilities. Under the supervision of school principals, teachers shall design the curriculum appropriately for language learning courses and various classroom contexts. This would entail setting intended learning outcomes, developing relevant content and learning materials, articulating teaching and learning methods, and determining appropriate assessment tools and classroom environment. Particularly, Cambodian teachers shall focus on promoting personal competence skills in language learning classrooms and ensure that there is a conducive learning environment that will allow learners to enhance their personal competence skills. In addition, with support of their teachers and school administrators, learners shall improve their ways of learning languages by not just solely focusing on mastering the macro skills but also enhancing other soft skills like creativity, critical thinking, collaboration, communication, problem-solving, and particularly personal competence skills.

Additionally, future research should cover other construct validity types, and statistical analyses should be done on the variant measurement. It is important to study and develop instruments that adequately gauge 21<sup>st</sup> century language learning abilities within the context of learners in Cambodia. Correlational studies will be taken into consideration to investigate the relationship between learning skills and other relevant variables, and experimental research designs will be presented to investigate the impact of developed interventions on enhancing students' 21<sup>st</sup> century language learning skills in this context.

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## Photo Sources

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# Appendices

## Appendix A. Retained 21st Century Learning Skills Items

### Appendix A: Retained 21<sup>st</sup> Century Learning Skills Items

**Table A.** Retained 21<sup>st</sup> Century Learning Skills Items

No.	Retained Items	Adapted Versions
<b>Critical Thinking Skills</b>		
1	CT1	I am confident in my ability to revise drafts and justify revisions with evidence when I perform the academic tasks of this language class.
2	CT2	I am confident in my ability to develop follow-up questions that focus or broaden inquiry when I study this language.
3	CT4	I am confident in my ability to identify in detail what needs to be known to answer a scientific inquiry in studying this language.
4	CT6	I am confident in my ability to create ideas geared to the intended teacher or peers when I perform the academic tasks of this language class.
5	CT8	I am confident in my ability to combine different elements into a complete concept when I perform the academic tasks of this language class.
6	CT9	I am confident in my ability to understand questions that lead to critical thinking in studying this language.
7	CT10	I am confident in my ability to gather relevant and sufficient information from different sources when I perform the academic tasks of this language class.
<b>Collaboration Skills</b>		
8	Col2	I am confident in my ability to acknowledge and respect other perspectives when I perform the academic tasks as group work of this language class.
9	Col4	I am confident in my ability to make sure all team members' ideas are equally valued when I perform the academic tasks as group work of this language class.
10	Col5	I am confident in my ability to help others in their work when needed in this language studying activity.
11	Col6	I am confident in my ability to improve my own work after I get feedback when I perform the academic tasks of this language class.
12	Col8	I am confident in my ability to come physically and mentally prepared each day to participate in studying this the language class.
13	Col9	I am confident in my ability to follow rules for team decision-making when I perform the academic tasks as group work of this language class.
<b>Communication Skills</b>		
14	Com1	I am confident in my ability to use time and study this language efficiently.
15	Com2	I am confident in my ability to organize information well to perform the academic tasks of this language class.
16	Com3	I am confident in my ability to monitor our team's progress toward goals and deadlines when I perform the academic tasks as group work of this language class.
17	Com5	I am confident in my ability to present all information clearly, consistently, and logically when I perform the academic tasks of this language class.

No.	Retained Items	Adapted Versions
		<b>Creativity Skills</b>
18	Cre1	I am confident in my ability to understand how knowledge or insights of this language class might transfer to other situations or context.
19	Cre2	I am confident in my ability to find sources of information and aspiration in performing the academic tasks of this language class when others do not.
20	Cre3	I am confident in my ability to help the team solve problems and manage conflicts when I perform the academic tasks as group work of this language class.
21	Cre4	I am confident in my ability to adapt a communication style appropriate for the purpose, task, or teachers when I perform the academic tasks of this language class.
22	Cre5	I am confident in my ability to elaborate and improve on ideas when I perform the academic tasks of this language class.
		<b>Personal Competence Skills</b>
23	PCD1	I am not concerned/worried when I have to read and understand the essay for an assignment in this language class.
24	PCD2	In this language learning class, I am not concerned when I have to write a convincing argument for my teacher who may disagree.
25	PCD3	I often have no trouble expressing my ideas trying to write them for a class assignment of this language class.
		<b>Problem-Solving Skills</b>
26	PSD4	Whenever I have a problem in studying this language, I determine which information is reliable and valid in dealing with any problem.
27	PSD5	Whenever I have a problem studying this language, I predict possible outcomes to various solutions.
28	PSD6	Whenever I have a problem in studying this language, I estimate the probability that a certain outcome of a solution will occur.
29	PSD7	Whenever I have a problem in studying this language, I will normally place possible outcomes of a solution in rank order according to their desirability.

Source: Kelly and colleagues, 2019, Fleming & Watts, 1980 and Bugen & Hawkin, 1981

## Appendix B. Confirmatory Factor Analysis of 21st Century Learning Skills among Early Adolescent Students

### Critical thinking skills in language learning among early adolescent students

**Table B1.** Kaiser-Mayer-Olkin (KMO) sample measurements and Bartlett's test results for critical thinking skills

<b>Kaiser-Meyer-Olkin (KMO)</b>	<b>0.803</b>			
<b>Bartlett's Test Value</b>	Approximate Chi-Square	585.900	df=45	p=.000*

**Table B2.** Factor loading values of critical thinking skills

	Items	Rotated Factor Loading Value	
		1	2
Critical Thinking Skills	CT9	.658	
	CT6	.563	
	CT8	.540	
	CT4	.518	
	CT3		
	CT7		
	CT5		
	CT2		.747
	CT10		.671
	CT1		.568

Note: The blank cells and the shaded cells mean that all these items are excluded due to the value of factor loading lower than .5.

**Collaboration skills in language learning among early adolescent students**

**Table B3.** *Kaiser-Meyer-Olkin (KMO) sample measurements and Bartlett's test results for collaboration skills*

<b>Kaiser-Meyer-Olkin (KMO)</b>	<b>0.795</b>			
<b>Bartlett's Test Value</b>	Approximate Chi-Square	462.46	df=36	p=.000*

**Table B4.** *Factor loading values of collaboration skills*

Items	Rotated Factor Loading Value	
	1	2
Col9	.640	
Col4	.569	
Col6	.552	
Col2	.548	
Collaboration Skills	Col8	.544
	Col5	.525
	Col3	
	Col1	
	Col7	

**Communication skills in language learning among early adolescent students**

**Table B5.** *Kaiser-Meyer-Olkin (KMO) sample measurements and Bartlett's test results for communication skills*

<b>Kaiser-Meyer-Olkin (KMO)</b>	<b>0.687</b>			
<b>Bartlett's Test Value</b>	Approximate Chi-Square	166.562	df=10	p=.000*

**Table B6.** Factor loading values of communication skills

	Items	Rotated Factor Loading Value	
		1	2
Communication Skills	Com3	.665	
	Com5	.626	
	Com1	.602	
	Com2	.582	
	Com4		

### Creativity skills in language learning among early adolescent students

**Table B7.** Kaiser-Mayer-Olkin (KMO) sample measurements and Bartlett's test results for creativity skills

<b>Kaiser-Meyer-Olkin (KMO)</b>	<b>0.705</b>			
<b>Bartlett's Test Value</b>	Approximate Chi-Square	194.858	df=10	p=.000*

**Table B8.** Factor loading values of creativity skills

	Items	Rotated Factor Loading Value	
		1	2
Creativity Skills	Cre4	.637	
	Cre2	.624	
	Cre5	.592	
	Cre3	.583	
	Cre1	.575	

### Personal competence skills in language learning among early adolescent students

**Table B9.** Kaiser-Mayer-Olkin (KMO) sample measurements and Bartlett's test results for personal competence skills

<b>Kaiser-Meyer-Olkin (KMO)</b>	<b>0.626</b>			
<b>Bartlett's Test Value</b>	Approximate Chi-Square	220.45	df=6	p=.000*

**Table B10.** Factor loading values of personal competence skills

	Items	Rotated Factor Loading Value	
		1	2
Personal Competence Skills	PCD3	.772	
	PCD1	.752	
	PCD2	.728	
	PCD4		.960

**Problem-solving skills in language learning among early adolescent students**

**Table B11.** Kaiser-Meyer-Olkin (KMO) sample measurements and Bartlett's test results for problem-solving skills

<b>Kaiser-Meyer-Olkin (KMO)</b>	<b>0.799</b>			
<b>Bartlett's Test Value</b>	Approximate Chi-Square	543.823	df=6	p=.000*

**Table B12.** Factor loading values of problem-solving skills

	Items	Rotated Factor Loading Value	
		1	2
Problem-Solving Skills	PSD6	.702	
	PSD5	.683	
	PSD7	.663	
	PSD4	.531	
	PSD3		
	PSD9		
	PSD1		
	PSD2		.775
	PSD8		.684

## Appendix C. Multivariate Test (MANOVA) Results

**Table C.** Summary of MANOVA results across types of schools

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Critical Thinking	.44a	1	.44	3.34	.07
	Collaboration	3.18b	1	3.19	18.68	.00
	Communication	.03c	1	.04	0.21	.65
	Creativity	2.63d	1	2.63	15.34	.00
	Personal Competence	2.52e	1	2.52	5.13	.02
	Problem-solving	2.80f	1	2.80	10.38	.00
Intercept	Critical Thinking	5169.75	1	5169.75	38947.43	.00
	Collaboration	5985.95	1	5985.96	35105.61	.00
	Communication	5683.41	1	5683.41	30065.29	.00
	Creativity	5725.20	1	5725.20	33392.69	.00
	Personal Competence	4322.76	1	4322.76	8788.16	.00
	Problem-solving	4767.31	1	4767.31	17659.43	.00
Schools	Critical Thinking	.44	1	.44	3.34	.07
	Collaboration	3.18	1	3.19	18.68	.00
	Communication	.03	1	.04	0.21	.65
	Creativity	2.63	1	2.63	15.34	.00
	Personal Competence	2.52	1	2.52	5.13	.02
	Problem-solving	2.80	1	2.80	10.38	.00
Error	Critical Thinking	78.31	590	.13		
	Collaboration	100.60	590	.17		
	Communication	111.53	590	.19		
	Creativity	101.15	590	.17		
	Personal Competence	290.21	590	.49		
	Problem-solving	159.27	590	.27		
Total	Critical Thinking	5254.87	592			

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Source		Type III Sum of Squares	df	Mean Square	F	Sig.
	Collaboration	6101.59	592			
	Communication	5799.94	592			
	Creativity	5839.81	592			
	Personal Competence	4613.01	592			
	Problem-solving	4939.129	592			
Corrected Total	Critical Thinking	78.757	591			
	Collaboration	103.788	591			
	Communication	111.570	591			
	Creativity	103.786	591			
	Personal Competence	292.736	591			
	Problem-solving	162.078	591			

**Appendix D. Questionnaire for Khmer Language Subject**

កម្រងសំណួរស្តីអំពី  
**«ការពិនិត្យមើលបំណិនសកស្សទី២១ ក្នុងស្ថានភាពជាក់ស្តែងផ្សេងៗគ្នានៃការរៀនសូត្រ  
 ក្នុងចំណោមកុមារពិសាលាសាសនាឥស្លាម និងសាលារដ្ឋនៅកម្ពុជា»**

មហាវិទ្យាល័យអប់រំ សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញកំពុងធ្វើការសិក្សាស្រាវជ្រាវទាក់ទងនឹង  
 ប្រធានបទស្តីអំពី «ការពិនិត្យមើលបំណិនសកស្សទី២១ ក្នុងស្ថានភាពជាក់ស្តែងផ្សេងៗគ្នានៃការ  
 រៀនសូត្រក្នុងចំណោមកុមារពិសាលាសាសនាឥស្លាម និងសាលារដ្ឋក្នុងប្រទេសកម្ពុជា»។ សូមប្តូរ  
 មេត្តាជួយបំពេញកម្រងសំណួរមួយនេះ ដើម្បីយើងអាចសិក្សាស្រាវជ្រាវលើប្រធានបទខាងលើ។ សូម  
 បញ្ជាក់ថា រាល់ព័ត៌មានទាំងអស់របស់ប្តូរនឹងត្រូវរក្សាជាការសម្ងាត់ និងមិនមានការផ្សព្វផ្សាយជា  
 សាធារណៈនោះទេ។ សូមអ្នកទាំងអស់គ្នាទាក់ទងមកក្រុមការងារយើងខ្ញុំតាមរយៈលេខទូរស័ព្ទ៖ ០១០  
 ៩២១ ៣៧៧ ឬ០១៧ ៨៩១ ០៦៩ ឬតាមរយៈអ៊ីម៉ែល៖  
 kesambo1978@gmail.com/neak\_piseth@yahoo.com។

- ផ្នែកទី១៖ ទិន្នន័យផ្ទាល់ខ្លួនរបស់អ្នកបំពេញកម្រងសំណួរ
- សូមគូសសញ្ញា  ក្នុងប្រអប់  ឬបំពេញចន្លោះខាងក្រោមតាមភាពជាក់ស្តែង៖
១. ភេទ៖ ១.  ស្រី ២.  ប្រុស
២. អាយុ៖ ..... ឆ្នាំ
៣. សញ្ជាតិ៖ ១.  ខ្មែរឥស្លាម ២.  ខ្មែរ
៤. ប្រភេទសាលារៀន៖ ១.  សាលាឥស្លាម ២.  សាលារដ្ឋ
៥. មុខរបរបច្ចុប្បន្នរបស់អ្នក (អាចជ្រើសចម្លើយលើសពីមួយ)៖
១.  កសិករ ២.  មេដូ ៣.  អាជីវករ ៤.  គ្រូបង្រៀន
៥.  មន្ត្រីរាជការ ៦.  គ្រូពេទ្យ ៧.  ផ្សេងៗ (បញ្ជាក់).....

ផ្នែកទី២៖ បទពិសោធន៍ការប្រើប្រាស់បំណិនសកស្សទី២១ នៅក្នុងការសិក្សាភាសាខ្មែររបស់កុមារ  
 បឋមសិក្សាសាលារដ្ឋ

សូមប្តូរអានល្អៗខាងក្រោមដោយយកចិត្តទុកដាក់ និងគូសសញ្ញា  ដើម្បីជ្រើសរើសយកជម្រើស  
 មួយក្នុងចំណោមជម្រើសទាំងបួន ដែលឆ្លើយតបទៅនឹងបទពិសោធន៍ ឬការយល់ឃើញផ្ទាល់ខ្លួនរបស់  
 ប្តូរ។ ប្រសិនបើប្តូរ ជ្រើសរើសយក៖

លេខ ១ មានន័យថា ប្តូរមិនយល់ស្របទាល់តែសោះ

លេខ ២ មានន័យថា ប្តូរមិនយល់ស្រប

លេខ ៣ មានន័យថា ប្តូរយល់ស្រប

លេខ ៤ មានន័យថា ប្តូរយល់ស្របទាំងស្រុង។

លរ	បំណិនសិក្សាសកស្សទី២១	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិន យល់ស្រប ទាល់តែសោះ	មិន យល់ ស្រប	យល់ ស្រប	យល់ ស្រប ទាំង ស្រុង
១	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿ ជាក់ថាអាចកែតម្រូវក្រដាសព្រាងកិច្ចការ និង				

លរ	បំណិនសិក្សាសកម្មទី២១	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិនយល់ស្របទាល់តែសោះ	មិនយល់ស្រប	យល់ស្រប	យល់ស្របទាំងស្រុង
	ពន្យល់ការកែតម្រូវនោះដោយសអាងលេកស្តកាងច្បាស់លាស់។				
២	នៅពេលរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចបង្កើតសំណួរដេញដោលដើម្បីចង់បានព័ត៌មានបន្ថែម។				
៣	នៅពេលរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចចេះនិយាយពាក្យក្នុងសម័យ និងមានចិត្តល្អចំពោះមិត្តរួមក្រុម។				
៤	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចទទួលស្គាល់ និងគោរពមតិយោបល់អ្នកដទៃ។				
៥	ខ្ញុំជឿជាក់ថាអាចប្រើប្រាស់ពេលវេលារៀនភាសាខ្មែរបានប្រសើរ។				
៦	ខ្ញុំជឿជាក់ថាអាចរៀបចំព័ត៌មានបានល្អ ដើម្បីធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរនេះ។				
៧	ខ្ញុំជឿជាក់ថាអាចយល់ពីរបៀបយកចំណេះដឹងដែលបានពីការសិក្សាភាសាខ្មែរទៅប្រើនៅក្នុងស្ថានភាព ឬជីវិតរស់នៅផ្សេងទៀត។				
៨	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរខ្ញុំជឿជាក់ថាខ្ញុំអាចស្វែងរកប្រភពព័ត៌មាន។				
៩	នៅពេលរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាខ្ញុំមិនបារម្ភណ៍ក្នុងការអានមេរៀនដើម្បីធ្វើកិច្ចការផ្ទះនោះទេ។				
១០	នៅពេលរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាខ្ញុំមិនបារម្ភណ៍ក្នុងការសរសេរពន្យល់ បញ្ហាបញ្ញត្តិប្រកបសំខ្ញុំ។				
១១	នៅពេលណាដែលខ្ញុំជួបបញ្ហាក្នុងការរៀនមេរៀនភាសាខ្មែរ ខ្ញុំចេះជ្រើសរើសវិធីដោះស្រាយមួយក្នុងចំណោមវិធីដោះស្រាយជាច្រើនដែលខ្ញុំដឹង។				
១២	នៅពេលណាដែលខ្ញុំជួបបញ្ហាក្នុងការរៀនភាសាខ្មែរ ខ្ញុំអាចមើលឃើញពីរឿងរ៉ាវមិនល្អដែលអាចកើតឡើង ហើយដែលខ្ញុំព្រមទទួលដោះស្រាយបញ្ហាទាំងនោះឱ្យខាងតែបាន។				
១៣	នៅពេលដែលខ្ញុំរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំហ្នឹកហាក់និយាយពីមេរៀនទៅកាន់ខ្លួនឯងសាច់សាឡើង។				

លរ	បំណិនសិក្សាសកម្មទី២១	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិនយល់ស្របទាល់តែសោះ	មិនយល់ស្រប	យល់ស្រប	យល់ស្របទាំងស្រុង
១៤	នៅពេលដែលខ្ញុំរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំអានកំណត់ត្រារបស់ខ្ញុំ និងសៀវភៅអត្ថបទសាចុះសាឡើង។				
១៥	នៅពេលរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំភ្លេចចំណុចសំខាន់ៗជាញឹកញយ ដោយសារខ្ញុំរលំតែគិតរឿងផ្សេងៗទៀត។				
១៦	នៅពេលដែលខ្ញុំកំពុងអានអត្ថបទនៅក្នុងមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំបង្កើតសំណួរដើម្បីជួយឱ្យខ្ញុំអាចផ្តោតការយកចិត្តទុកដាក់ទៅលើការអាន។				
១៧	នៅពេលដែលខ្ញុំចាប់ផ្តើមយល់ច្រឡំអំពីរឿងអ្វីមួយដែលខ្ញុំកំពុងអាននៅក្នុងមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំអានត្រឡប់ក្រោយឡើងវិញដើម្បីរកមើលចំណុចដែលច្រឡំនោះ។				
១៨	ប្រសិនបើឯកសាររៀននៅក្នុងមុខវិជ្ជាភាសាខ្មែរ មានការលំបាកយល់ ខ្ញុំស្តាប់ប្តូរវីដេអូក្នុងការអានឯកសារនោះ។				
១៩	នៅក្នុងការរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំទន្ទេញពាក្យកន្លឹះដើម្បីរំលឹកខ្លួនចំណុចសំខាន់ៗ។				
២០	ដើម្បីរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំធ្វើបញ្ជីពាក្យកន្លឹះសំខាន់ៗ ហើយទន្ទេញពាក្យក្នុងបញ្ជីនោះ។				
២១	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាខ្មែរ ខ្ញុំប្រមូលព័ត៌មានជាច្រើន និងវាយតម្លៃព័ត៌មានទាំងនោះ ដើម្បីយកទៅដោះស្រាយបញ្ហានោះ។				
២២	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាខ្មែរ ខ្ញុំអាចដឹងថាព័ត៌មានណាដែលអាចទុកចិត្តបាន និងព័ត៌មានណាដែលត្រឹមត្រូវដើម្បីយកព័ត៌មានទាំងនោះទៅដោះស្រាយបញ្ហាឱ្យបានល្អ។				
២៣	នៅពេលរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាខ្ញុំមិនបារម្ភណាស់ក្នុងការបញ្ចេញមតិយោបល់ដើម្បីសរសេរកិច្ចការផ្ទះរបស់ខ្ញុំនោះទេ។				
២៤	នៅពេលរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាខ្ញុំអាចយល់បាននៅពេលដែលខ្ញុំអានមេរៀនដើម្បីធ្វើកិច្ចការផ្ទះ។				
២៥	នៅពេលធ្វើកិច្ចការក្រុម មុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាខ្ញុំអាចជួយដោះស្រាយបញ្ហាក្រុមបាន។				

លរ	បំណិនសិក្សាសកម្មទី២១	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិនយល់ស្របទាល់តែសោះ	មិនយល់ស្រប	យល់ស្រប	យល់ស្របទាំងស្រុង
២៦	នៅពេលខ្ញុំធ្វើកិច្ចការ មុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចសម្របខ្លួនទៅនឹងបំណង កិច្ចការដែលត្រូវធ្វើ និងបំណងលោកគ្រូ-អ្នកគ្រូជាដើម។				
២៧	នៅពេលដែលខ្ញុំធ្វើកិច្ចការក្រុម មុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចតាមដានមើលពីការរីកចម្រើនការងាររបស់ក្រុម ធៀបទៅនឹងគោលដៅនិងពេលវេលាកំណត់។				
២៨	នៅពេលរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាខ្ញុំអាចបំពេញកិច្ចការដោយមិនបាច់មានគេតាមទារ។				
២៩	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចអនុវត្តតាមច្បាប់ទម្លាប់របស់គ្រូម។				
៣០	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចធ្វើឱ្យគំនិតរបស់សមាជិកក្រុមមានគម្លែងៗគ្នា។				
៣១	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចបង្កើតគំនិតថ្មី ប្លែក និងគួរឱ្យភ្ញាក់ផ្អើល។				
៣២	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចលម្អិតរឿងរ៉ាវដែលត្រូវដឹង ដើម្បីឆ្លើយនឹងសំណួររបបស្វែងយល់។				
៣៣	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចវាយតម្លៃហេតុផល និងភ័ស្តុតាងដែលគាំទ្រដល់ការជជែកវែកញែក។				
៣៤	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចរៀបចំគំនិតឱ្យត្រូវនឹងបំណងរបស់គ្រូខ្ញុំ ឬមិត្តភក្តិខ្ញុំ។				
៣៥	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចជួយការងារ អ្នកដទៃនៅពេលដែលគេត្រូវការឱ្យជួយ។				
៣៦	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចកែលម្អការងាររបស់ខ្ញុំ នៅពេលដែលខ្ញុំទទួលបានព័ត៌មានត្រឡប់។				
៣៧	នៅពេលរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចបង្ហាញព័ត៌មានបានសមស្រប ច្បាស់លាស់និងសមហេតុផល។				

លរ	បំណិនសិក្សាសករក្សទី២១	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិនយល់ស្របទាល់តែសោះ	មិនយល់ស្រប	យល់ស្រប	យល់ស្របទាំងស្រុង
៣៨	នៅពេលខ្ញុំធ្វើកិច្ចការ មុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចបកស្រាយល្អិតល្អន់ និងកែលម្អកំនើតនានា។				
៣៩	នៅពេលណាដែលខ្ញុំជួបបញ្ហាក្នុងការរៀនមេរៀនភាសាខ្មែរ ខ្ញុំទាយលទ្ធផលនានាទៅតាមដំណោះស្រាយផ្សេងៗគ្នា។				
៤០	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាខ្មែរ ខ្ញុំអាចស្ថានដឹងពីកម្រិតលទ្ធផលដែលនឹងទទួលបានពីការប្រើប្រាស់វិធីដោះស្រាយបញ្ហាផ្សេងៗគ្នា។				
៤១	មុនពេលដែលខ្ញុំរៀនឯកសារថ្មីនៃមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំបានមត់ចត់ ខ្ញុំតែងតែអានវាត្រួសៗដើម្បីមើលឃើញពីរបៀបរៀបចំរបស់ឯកសារនោះ។				
៤២	នៅក្នុងការរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំសួរខ្លួនឯងនូវសំណួរមួយចំនួន ដើម្បីបញ្ជាក់ថាខ្ញុំបានយល់ឯកសារនោះពិតប្រាកដមែន។				
៤៣	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាខ្មែរ ខ្ញុំសម្របសម្រួលយកតែវិធីពីរបៀបប៉ុន្តែដោះស្រាយបញ្ហាដែលអាច ផ្តល់ផលសម្រេចតាមការបំប្រែប្រួល។				
៤៤	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាខ្មែរ ខ្ញុំដឹងពីផលវិបាក រយៈពេលខ្លី និងរយៈពេលវែងដែលទទួលបានពីសកម្មភាពដែលខ្ញុំនឹងត្រូវធ្វើ។				
៤៥	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចប្រើប្រាស់ កាយវិការសមរម្យនៅពេលត្រូវបង្ហាញកិច្ចការចំពោះមុខគ្រូ និងសិស្ស។				
៤៦	ខ្ញុំជឿជាក់ថាអាចត្រៀមខ្លួនទាំងកាយ ទាំងចិត្ត រៀនរាល់ថ្ងៃ ដើម្បីចូលរួមរៀនសូត្រមុខវិជ្ជាភាសាខ្មែរ។				
៤៧	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចបង្កើតសំណួរដេញដោល ដើម្បីដឹងពីអ្វីដែលគ្រូ ឬមិត្តភក្តិខ្ញុំចង់បាន ឬត្រូវការ។				
៤៨	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចផ្តល់កំនើតច្នៃប្រឌិតទៅជាកំនើតផ្ទៃមួយ។				

លរ	បំណិនសិក្សាសករក្សាទី២១	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិនយល់ស្របទាល់តែសោះ	មិនយល់ស្រប	យល់ស្រប	យល់ស្របទាំងស្រុង
៤៩	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចប្រមូលព័ត៌មានពាក់ព័ន្ធ និងគ្រប់គ្រាន់ពីប្រភពផ្សេងៗគ្នា។				
៥០	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចធ្វើតាមបទបញ្ជាក្រុមសម្រាប់ការសម្រេចចិត្តរួមគ្នា។				
៥១	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាខ្មែរ ជាធម្មតា ខ្ញុំនឹងគម្រៀបលទ្ធផលដែលនឹងទទួលបានពីការប្រើវិធីដោះស្រាយ បែបណាមួយឱ្យមានលំដាប់លំដោយ ស្របតាមគោលបំណង។				
៥២	នៅក្នុងការរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំព្យាយាមផ្លាស់ប្តូរវិធីរៀន ដើម្បីឱ្យសមស្របទៅនឹងអ្វីដែលគ្រូខ្ញុំគ្រូម្ខាង។				
៥៣	ជាញឹកញយ ខ្ញុំដឹងថាខ្ញុំកំពុងអានឯកសារនៅក្នុងមុខវិជ្ជាភាសាខ្មែរ ប៉ុន្តែខ្ញុំមិនដឹងថាឯកសារនោះនិយាយអ្វីនោះទេ។				
៥៤	នៅក្នុងការរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំព្យាយាមគិតពីប្រធានបទមួយ ហើយនឹងសម្រេចថាអ្វីដែលខ្ញុំគ្រូរៀនពិរា ជាជាងគ្រាន់តែអានវាឱ្យចប់ប៉ុន្មានណោះ។				
៥៥	នៅពេលកំពុងរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំព្យាយាមរកមើលខ្លឹមសារណាដែលខ្ញុំមិនទាន់យល់ច្បាស់នៅឡើយ។				
៥៦	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចយល់សំណួររបៀបគ្រឹះវិះ។				
៥៧	នៅពេលដែលខ្ញុំសិក្សាមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំកំណត់គោលដៅសម្រាប់ខ្លួនឯងដើម្បីកម្រងសកម្មភាពរៀនសូត្ររបស់ខ្ញុំក្នុងអំឡុងពេលរៀន ម្តងៗ។				
៥៨	ប្រសិនបើខ្ញុំច្រឡំកត់ត្រាខុសនៅក្នុងការរៀនមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំត្រូវតែរៀបចំពិនិត្យមើលវាឡើងវិញនៅពេលក្រោយ។				

សូមអរគុណ!

**Appendix E. Questionnaire for Arabic Language Subject**

**Appendix E: Questionnaire for Arabic Language Subject**

កម្រងសំណួរស្តីអំពី

**«ការពិនិត្យមើលបំណិនសកម្មភាព ក្នុងស្ថានភាពជាក់ស្តែងផ្សេងៗគ្នានៃការរៀនសូត្រ ក្នុងចំណោមកុមារពីសាលាសាសនាស្នាម និងសាលារដ្ឋនៅកម្ពុជា»**

មហាវិទ្យាល័យអប់រំ សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញកំពុងធ្វើការសិក្សាស្រាវជ្រាវទាក់ទងនឹងប្រធានបទស្តីអំពី: **«ការពិនិត្យមើលបំណិនសកម្មភាព ក្នុងស្ថានភាពជាក់ស្តែងផ្សេងៗគ្នានៃការរៀនសូត្រក្នុងចំណោមកុមារពីសាលាសាសនាស្នាម និងសាលារដ្ឋក្នុងប្រទេសកម្ពុជា»**។ សូមប្តូរមេត្តាជួយបំពេញកម្រងសំណួរមួយនេះ ដើម្បីយើងអាចសិក្សាស្រាវជ្រាវលើប្រធានបទខាងលើ។ សូមបញ្ជាក់ថា រាល់ព័ត៌មានទាំងអស់របស់ប្តូរនឹងត្រូវរក្សាជាការសម្ងាត់ និងមិនមានការផ្សព្វផ្សាយជាសាធារណៈនោះទេ។ សូមអ្នកទាំងអស់គ្នាទាក់ទងមកក្រុមការងារយើងខ្ញុំតាមរយៈលេខទូរស័ព្ទ: ០១០ ៩២១ ៣៧៧ ឬ០១៧ ៨៩១ ០៦៩ ឬតាមរយៈអ៊ីម៉ែល: kesambo1978@gmail.com/neak\_piseth@yahoo.com។

- ផ្នែកទី១: ទិន្នន័យផ្ទាល់ខ្លួនរបស់អ្នកបំពេញកម្រងសំណួរ
- សូមគូសសញ្ញា  ក្នុងប្រអប់  ឬបំពេញចន្លោះខាងក្រោមតាមភាពជាក់ស្តែង:
១. ភេទ: ១.  ស្រី ២.  ប្រុស
២. អាយុ: ..... ឆ្នាំ
៣. សញ្ជាតិ: ១.  ខ្មែរកម្ពុជា ២.  ខ្មែរ
៤. ប្រភេទសាលារៀន: ១.  សាលាស្នាម ២.  សាលារដ្ឋ
៥. មុខរបរបច្ចុប្បន្នរបស់អ្នក (អាចជ្រើសយកមួយលើសពីមួយ):
១.  កសិករ ២.  មេផ្ទះ ៣.  អាជីវករ ៤.  គ្រូបង្រៀន
៥.  មន្ត្រីរាជការ ៦.  គ្រូពេទ្យ ៧.  ផ្សេងៗ (បញ្ជាក់).....

ផ្នែកទី២: បទពិសោធន៍ការប្រើប្រាស់បំណិនសកម្មភាព នៅក្នុងការសិក្សាភាសាអារ៉ាប់របស់កុមារ បឋមសិក្សា សាលាសាសនាស្នាម

សូមប្តូរអានល្អៗខាងក្រោមដោយយកចិត្តទុកដាក់ និងគូសសញ្ញា  ដើម្បីជ្រើសរើសយកជម្រើសមួយក្នុងចំណោមជម្រើសទាំងបួន ដែលឆ្លើយតបទៅនឹងបទពិសោធន៍ ឬការយល់ឃើញផ្ទាល់ខ្លួនរបស់ប្តូរ។ ប្រសិនបើប្តូរ ជ្រើសយក:

លេខ ១ មានន័យថា ប្តូរមិនយល់ស្របទាល់តែសោះ

លេខ ២ មានន័យថា ប្តូរមិនយល់ស្រប

លេខ ៣ មានន័យថា ប្តូរយល់ស្រប

លេខ ៤ មានន័យថា ប្តូរយល់ស្របទាំងស្រុង។

លរ	បំណិនសិក្សាសកម្មភាព	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិនយល់ស្របទាល់តែសោះ	មិនយល់ស្រប	យល់ស្រប	យល់ស្របទាំងស្រុង
១	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ជាក់ថាអាចកែតម្រូវក្រដាសព្រាងកិច្ចការ និងពិនិត្យការកែតម្រូវនោះដោយសំអាងលើតារាងច្បាស់លាស់។				

លរ	បំណិនសិក្សាសកម្មទី២១	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិនយល់ស្របទាល់តែសោះ	មិនយល់ស្រប	យល់ស្រប	យល់ស្របទាំងស្រុង
២	នៅពេលរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចបង្កើតសំណួរ ដេញដោលដើម្បីចង់បានព័ត៌មានបន្ថែម។				
៣	នៅពេលរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចចេះនិយាយពាក្យ គួរសម និងមានចិត្តល្អចំពោះមិត្តរួមគ្រូម។				
៤	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចទទួលស្គាល់ និងគោរពមតិយោបល់អ្នកដទៃ។				
៥	ខ្ញុំជឿជាក់ថាអាចប្រើប្រាស់ពេលវេលារៀនភាសាអារ៉ាប់បានប្រសើរ។				
៦	ខ្ញុំជឿជាក់ថាអាចរៀបចំព័ត៌មានបានល្អ ដើម្បីធ្វើកិច្ចការ មុខវិជ្ជាភាសាអារ៉ាប់នេះ។				
៧	ខ្ញុំជឿជាក់ថាអាចយល់ពីរបៀបយកចំណេះដឹងដែលបានពីការសិក្សាភាសាអារ៉ាប់ទៅប្រើនៅក្នុងស្ថានភាព ឬរឿងរ៉ាវផ្សេងៗទៀត។				
៨	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាខ្ញុំអាចស្វែងរកប្រភពព័ត៌មាន។				
៩	នៅពេលរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាខ្ញុំមិនបារម្ភណ៍ក្នុងការអានមេរៀនដើម្បីធ្វើកិច្ចការផ្ទះនោះទេ។				
១០	នៅពេលរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាខ្ញុំមិនបារម្ភណ៍ក្នុងការសរសេរពន្យល់ បញ្ហាបញ្ញត្តិគ្រប់រូបស្តី។				
១១	នៅពេលណាដែលខ្ញុំជួបបញ្ហាក្នុងការរៀនមេរៀនភាសាអារ៉ាប់ ខ្ញុំចេះជ្រើសរើសវិធីដោះស្រាយមួយក្នុងចំណោមវិធីដោះស្រាយជាច្រើនដែលខ្ញុំដឹង ។				
១២	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាអារ៉ាប់ ខ្ញុំអាចមើលឃើញពីរឿងរ៉ាវមិនល្អដែលអាចកើតឡើង ហើយដែលខ្ញុំព្រមទទួលដោះស្រាយបញ្ហាទាំងនោះឱ្យខាងកែបាន។				
១៣	នៅពេលដែលខ្ញុំរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំហ្នឹកហ្នាក់និយាយពីមេរៀនទៅកាន់ខ្លួនឯងសាចុះសាឡើង។				

លរ	បំណិនសិក្សាសកម្មទី២១	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិនយល់ស្របទាល់តែសោះ	មិនយល់ស្រប	យល់ស្រប	យល់ស្របទាំងស្រុង
១៤	នៅពេលដែលខ្ញុំរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំអានកំណត់ត្រារបស់ខ្ញុំ និងសៀវភៅអត្ថបទសាចុះសាឡើង។				
១៥	នៅពេលរៀនក្នុងថ្នាក់មុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំភ្លេចចំណុចសំខាន់ៗជាញឹកញយ ដោយសារខ្ញុំរលតែគិតរឿងផ្សេងៗទៀត។				
១៦	នៅពេលដែលខ្ញុំកំពុងអានអត្ថបទនៅក្នុងមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំបង្កើតសំណួរដើម្បីជួយឱ្យខ្ញុំអាចផ្តោតការយកចិត្តទុកដាក់ទៅលើការអាន។				
១៧	នៅពេលដែលខ្ញុំចាប់ផ្តើមយល់ច្រឡំអំពីរឿងអ្វីមួយដែលខ្ញុំកំពុងអាននៅក្នុងមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំអានត្រឡប់ត្រាយឡើងវិញដើម្បីរកមើលចំណុចដែលច្រឡំនោះ។				
១៨	ប្រសិនបើឯកសាររៀននៅក្នុងមុខវិជ្ជាភាសាអារ៉ាប់ មានការលំបាកយល់ ខ្ញុំផ្លាស់ប្តូរវិធីក្នុងការអានឯកសារនោះ។				
១៩	នៅក្នុងការរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំទន្ទេញពាក្យគន្លឹះដើម្បីរំលឹកខ្លួនពីចំណុចសំខាន់ៗ។				
២០	ដើម្បីរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំធ្វើបញ្ជីពាក្យគន្លឹះសំខាន់ៗ ហើយទន្ទេញពាក្យក្នុងបញ្ជីនោះ។				
២១	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាអារ៉ាប់ ខ្ញុំប្រមូលព័ត៌មានជាច្រើន និងវាយតម្លៃព័ត៌មានទាំងនោះ ដើម្បីយកទៅដោះស្រាយបញ្ហានោះ។				
២២	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាអារ៉ាប់ ខ្ញុំអាចដឹងថាព័ត៌មានណាដែលអាចទុកចិត្តបាន និងព័ត៌មានណាដែលត្រឹមត្រូវដើម្បីយកព័ត៌មានទាំងនោះទៅដោះស្រាយបញ្ហាឱ្យបានល្អ។				
២៣	នៅពេលរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាខ្ញុំមិនបារម្ភណាស់ក្នុងការបញ្ចេញមតិយោបល់ដើម្បីសរសេរកិច្ចការផ្ទះរបស់ខ្ញុំនោះទេ។				
២៤	នៅពេលរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាខ្ញុំអាចយល់បាននៅពេលដែលខ្ញុំអានមេរៀនដើម្បីធ្វើកិច្ចការផ្ទះ។				
២៥	នៅពេលធ្វើកិច្ចការក្រុមមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាខ្ញុំអាចជួយដោះស្រាយបញ្ហាក្រុមបាន។				
២៦	នៅពេលខ្ញុំធ្វើកិច្ចការ មុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចសម្របខ្លួនទៅនឹងបំណង កិច្ចការដែលត្រូវធ្វើ និងបំណងលោកគ្រូ អ្នកគ្រូជាដើម។				

លរ	បំណិនសិក្សាសកម្មទី២១	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិនយល់ស្របទាល់តែសោះ	មិនយល់ស្រប	យល់ស្រប	យល់ស្របទាំងស្រុង
២៧	នៅពេលដែលខ្ញុំធ្វើកិច្ចការក្រុម មុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចតាមដានមើលពីការរីកចម្រើនការងាររបស់ក្រុម ធៀបទៅនឹងគោលដៅនិងពេលវេលាកំណត់។				
២៨	នៅពេលរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាខ្ញុំអាចបំពេញកិច្ចការដោយមិនបាច់មានគេតាមទារ។				
២៩	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចអនុវត្តតាមច្បាប់ទម្លាប់របស់ក្រុម។				
៣០	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចធ្វើឱ្យគំនិតរបស់សមាជិកក្រុមមានគម្លើងឡើង។				
៣១	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចបង្កើតគំនិតថ្មី ប្លែក និងគួរឱ្យគ្រាកឆ្កើល។				
៣២	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចលម្អិតរឿងរ៉ាវដែលត្រូវដឹង ដើម្បីឆ្លើយនឹងសំណួរបែបស្វែងយល់។				
៣៣	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចវាយតម្លៃ ហេតុផល និងភ័ស្តុភារដែលគាំទ្រដល់ការជជែកវែកញែក។				
៣៤	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចរៀបចំគំនិតឱ្យត្រូវនឹងបំណងរបស់គ្រូខ្ញុំ ឬមិត្តភក្តិខ្ញុំ។				
៣៥	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាខ្មែរ ខ្ញុំជឿជាក់ថាអាចជួយការងារ អ្នកដទៃនៅពេលដែលគេត្រូវការឱ្យជួយ។				
៣៦	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចកែលម្អការងាររបស់ខ្ញុំ នៅពេលដែលខ្ញុំទទួលបានព័ត៌មានត្រឹមត្រូវ។				
៣៧	នៅពេលរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចបង្ហាញព័ត៌មានបានសមស្រប ច្បាស់លាស់និងសមហេតុផល។				
៣៨	នៅពេលខ្ញុំធ្វើកិច្ចការ មុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចបកស្រាយល្អិតល្អន់ និងកែលម្អគំនិតនានា។				

លរ	បំណិនសិក្សាសកម្មទី២១	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិនយល់ស្របទាល់តែសោះ	មិនយល់ស្រប	យល់ស្រប	យល់ស្របទាំងស្រុង
៣៩	នៅពេលណាដែលខ្ញុំជួបបញ្ហាក្នុងការរៀនមេរៀនភាសាអារ៉ាប់ ខ្ញុំទាយលទ្ធផលនានាទៅតាមដំណោះស្រាយផ្សេងៗគ្នា។				
៤០	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាអារ៉ាប់ ខ្ញុំអាចស្ថានដឹងពីកម្រិតលទ្ធផលដែលនឹងទទួលបានពីការប្រើប្រាស់វិធីដោះស្រាយបញ្ហាផ្សេងៗគ្នា។				
៤១	មុនពេលដែលខ្ញុំរៀនឯកសារថ្មីនៃមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំបានម៉ត់ចត់ ខ្ញុំតែងតែអានវាត្រួតសព្វដើម្បីមើលឃើញពីរបៀបរៀបចំរបស់ឯកសារនោះ។				
៤២	នៅក្នុងការរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំសូរខ្លួនឯងនូវសំណួរមួយចំនួន ដើម្បីបញ្ជាក់ថាខ្ញុំបានយល់ឯកសារនោះពីគ្រប់ជ្រុងជ្រោយ។				
៤៣	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាអារ៉ាប់ ខ្ញុំសម្រេចសម្រាប់យកកែវិធីពីរបៀបដំណោះស្រាយយកទៅដោះស្រាយបញ្ហា ដែលអាចផ្តល់ផលសម្រេចតាមការបំរុងប្រាថ្នា។				
៤៤	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាអារ៉ាប់ ខ្ញុំដឹងពីផលវិបាក រយៈពេលខ្លី នឹងរយៈពេលវែង ដែលទទួលបានពីសកម្មភាពដែលខ្ញុំនឹងត្រូវធ្វើ។				
៤៥	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចប្រើប្រាស់ការវិភាគសមរម្យនៅពេលត្រូវបង្ហាញកិច្ចការចំពោះមុខគ្រូ និងសិស្ស។				
៤៦	ខ្ញុំជឿជាក់ថាអាចត្រៀមខ្លួនទាំងកាយ ទាំងចិត្តរៀនរាល់ថ្ងៃ ដើម្បីចូលរួមរៀនសូត្រមុខវិជ្ជាភាសាអារ៉ាប់។				
៤៧	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចបង្កើតសំណួរដេញដោល ដើម្បីដឹងពីអ្វីដែលគ្រូ ឬមិត្តភក្តិខ្ញុំចង់បាន ឬត្រូវការ។				
៤៨	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចដាក់ផ្គត់ផ្គង់ តូចៗឱ្យបានទៅជាកំនើកជម្រុញ។				
៤៩	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចប្រមូលព័ត៌មានពាក់ព័ន្ធ និងគ្រប់គ្រាន់ពីប្រភពផ្សេងៗគ្នា។				

លរ	បំណិនសិក្សាសកម្មភ្នំ២១	កម្រិតការយល់ឃើញរបស់អ្នក			
		១	២	៣	៤
		មិនយល់ស្របទាល់តែសោះ	មិនយល់ស្រប	យល់ស្រប	យល់ស្របទាំងស្រុង
៥០	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចធ្វើតាម បទបញ្ជាក្រុមសម្រាប់ការសម្រេចចិត្តរួមគ្នា។				
៥១	នៅពេលណាដែលខ្ញុំជួបបញ្ហាការរៀនភាសាអារ៉ាប់ ជាធម្មតា ខ្ញុំនឹងគម្រៀបលទ្ធផលដែលនឹងទទួលបានពីការប្រើវិធីស្រាយបែបណាមួយ ឱ្យមានលំដាប់លំដោយ ស្របតាមគោលបំណង។				
៥២	នៅក្នុងការរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំព្យាយាមផ្លាស់ប្តូរវិធីរៀន ដើម្បីឱ្យសមស្របទៅនឹងអ្វីដែលគ្រូខ្ញុំកម្រើក។				
៥៣	ជារឿយៗ ខ្ញុំដឹងថាខ្ញុំកំពុងអានឯកសារនៅក្នុងមុខវិជ្ជាភាសាអារ៉ាប់ ប៉ុន្តែខ្ញុំមិនដឹងថាឯកសារនោះនិយាយពីអ្វីនោះទេ។				
៥៤	នៅក្នុងការរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំព្យាយាមកំណត់ប្រធានបទមួយ ហើយនិងសម្រេចថាអ្វីដែលខ្ញុំកម្រើករៀនពីវា ជាជាងគ្រាន់តែអានវាឱ្យចប់ប៉ុន្តោះទេ។				
៥៥	នៅពេលកំពុងរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំព្យាយាមរកមើលខ្លឹមសារណា ដែលខ្ញុំមិនទាន់យល់ច្បាស់នៅឡើយ។				
៥៦	នៅពេលធ្វើកិច្ចការមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំជឿជាក់ថាអាចយល់សំណួររបៀបគ្រឹះវិះ។				
៥៧	នៅពេលដែលខ្ញុំសិក្សាមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំកំណត់គោលដៅសម្រាប់ខ្លួនឯងដើម្បីកម្រងសកម្មភាពរៀនសូត្ររបស់ខ្ញុំក្នុងអំឡុងពេលរៀនម្តងៗ។				
៥៨	ប្រសិនបើខ្ញុំច្រឡំកំណត់គោលដៅនៅក្នុងការរៀនមុខវិជ្ជាភាសាអារ៉ាប់ ខ្ញុំត្រូវតែរៀបចំពិនិត្យមើលវាឡើងវិញនៅពេលក្រោយ។				

សូមអរគុណ!



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